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EXECUTIVE SUMMARY

The preliminary proposed findings of fact submitted by the United States establish facts consistent with the allegations set forth in Counts 3 and 4 of the United States' first amended complaint. Both counts are brought under the Racketeer Influenced and Corrupt Organizations Act ("RICO"), 18 U.S.C. § 1964(a) and (b). These facts establish entitlement to equitable relief, including the disgorgement of Defendants' ill gotten gains. As set forth in these preliminary proposed findings of fact, the evidence establishes that Defendants have engaged and are engaged in an extensive scheme to deceive and defraud the public and consumers of cigarettes, in violation of RICO. Moreover, the Defendants' past unlawful conduct indicates a reasonable likelihood of future violations.

Cigarette smoking and exposure to secondhand smoke kills nearly 440,000 Americans every year. The annual number of deaths due to cigarette smoking is substantially greater than the annual number of deaths due to illegal drug use, alcohol consumption, automobile accidents, fires, homicides, suicides and AIDS combined. Approximately one out of every five deaths that occur in the United States is caused by cigarette smoking.

At the end of 1953, the chief executives of the five major cigarette manufacturers in the United States at the time – Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American – met at the Plaza Hotel in New York City with representatives of the public relations firm Hill & Knowlton and agreed to jointly conduct a long term public relations campaign to counter the growing evidence linking smoking as a cause of serious diseases. The meeting spawned an association-in-fact enterprise to execute a fraudulent scheme in furtherance of their overriding common objective – to preserve and enhance the tobacco industry's profits by

maximizing the numbers of smokers and number of cigarettes smoked and to avoid adverse liability judgments. The fraudulent scheme would continue for the next five decades.

As a result of the Plaza Hotel meetings, the companies launched their long term public relations campaign by issuing the “Frank Statement to Cigarette Smokers,” a full page announcement published in 448 newspapers across the United States. The Frank Statement included two representations that would lie at the heart of Defendants' fraudulent scheme – first, that there was insufficient scientific and medical evidence that smoking was a cause of disease; and second, that the industry would jointly sponsor and disclose the results of “independent” research designed to uncover the health effects of smoking through the new industry-funded Tobacco Industry Research Committee (“TIRC”), later renamed the Council for Tobacco Research (“CTR”). At the same time that Defendants announced in their 1954 "Frank Statement to Cigarette Smokers" that "we accept an interest in people’s health as a basic responsibility, paramount to every other consideration in our business," it established a sophisticated public relations apparatus in the form of TIRC – based on the "cover" of conducting research – to deny the harms of smoking and to reassure the public. Once the essential strategy of generating controversy surrounding the scientific findings linking smoking to disease was organized and implemented in 1953-54, the industry's approach was unwavering for five decades.

Over time, other entities joined and participated in the affairs of the ongoing Enterprise and conspiracy, including Liggett and BATCo, Brown & Williamson’s affiliate. In 1958, the members of TIRC formed the Tobacco Institute to assume many of TIRC's public relations functions. In 1985, Philip Morris Companies joined the Enterprise, becoming a direct parent to Philip Morris as well as Philip Morris International, which had previously been part of Philip

Morris. The Enterprise operated through both formal structures, including jointly funded and directed entities such as TIRC/CTR and the Tobacco Institute, and other less formal means, including scientific and legal committees, to communicate, advance, and maintain a united front, and to ensure lockstep adherence to achieve their shared aims. Defendants developed and used this extensive and interlocking web because they recognized that any departure from the industry-wide approach to the content of public statements or the nature of research would have severe adverse consequences for the entire industry. To coordinate and further their fraudulent scheme, Defendants made and caused to be made and received innumerable mail and electronic transmissions from the 1950s through the 1990s.

From the outset, the dual functions of TIRC/CTR, public relations and scientific research, were intertwined. Rather than carefully and critically assessing the emerging scientific data concerning the harms of smoking, TIRC/CTR focused its energies and resources in two areas. First, in its public relations capacity, it repeatedly attacked scientific studies that demonstrated the harms of cigarette smoke and worked to reassure smokers about cigarettes. Second, it developed and funded a research program that concentrated on basic processes of disease and that was distant, if not completely irrelevant, to evaluating the immediate and fundamental questions of the risks and harms associated with smoking.

Similarly, the Tobacco Institute actively designed and wrote issue statements, advertisements, pamphlets, and testimony that advanced the Defendants' jointly formulated positions on smoking and health issues, including denying that smoking cigarettes was addictive and caused diseases, and supporting the false claim that the link between smoking cigarettes and adverse health effects was an "open question." In this way, the functions (public relations and

research) of these two entities were integrally related; both were fully committed to the Defendants' goals of denying and discrediting the substantial scientific evidence of smoking's harms and convincing the public (especially smokers and potential smokers) that smoking was not harmful to health.

Defendants repeatedly represented to the public that they sponsored independent research aimed at discovering the health effects of smoking. Indeed, Defendants claimed that they created TIRC/CTR to administer this effort. These statements were misleading and deceptive half-truths, because the Cigarette Company Defendants¹ used TIRC/CTR to serve as a "front" organization to advance their public relations and litigation defense objectives. Through CTR, the Cigarette Company Defendants funded "Special Projects" – research projects conceived and directed by committees of industry representatives, including lawyers, to support scientists who had shown a willingness and ability to generate information and provide testimony that could bolster the industry's litigation defenses before courts and governmental bodies and cast doubt on the scientific evidence that smoking caused cancer and other diseases.

Similarly, Defendants also sponsored jointly funded research through lawyer-administered "Special Accounts" – to recruit and support industry-friendly researchers to serve as expert witnesses in litigation and to represent the industry's scientific position in legislative and regulatory proceedings.

Cigarette Company Defendants created and used other jointly supported entities for

¹As used here and throughout these Preliminary Proposed Findings of Fact, "Cigarette Company Defendants" refers to Defendants American Tobacco, British American Tobacco (Investments) Limited, Brown & Williamson, Liggett, Lorillard, Philip Morris Inc., R.J. Reynolds, and, from July 1, 1985 to the present, Philip Morris Companies Inc.

similar ends, such as the Center for Indoor Air Research (CIAR) which took the lead in denying and distorting the harms of secondhand smoke, as known as environmental tobacco smoke, to further the industry's position that exposure to cigarette smoke and environmental tobacco smoke was not harmful.

Within the individual Cigarette Company Defendants, high-ranking corporate employees and lawyers feared that if they conducted research internally that confirmed that cigarettes cause disease and are addictive, such research, if disclosed, would jeopardize the unified legal position taken by the Defendants and would expose not just that company, but the entire industry, to legal liability and product regulation. Of course, the Cigarette Company Defendants did, in fact, recognize internally that cigarettes caused lung cancer and other diseases: they recognized the legitimacy of the scientific consensus, and the limited amount of internal research that their scientists did perform confirmed the results of mainstream scientific study.

The public statements issued through organizations like TIRC/CTR, the Tobacco Institute, CIAR, and by Cigarette Company Defendants themselves, were flatly inconsistent with Defendants' actual knowledge about the link between smoking and disease. At the same time that Defendants assured the public through their “Frank Statement” that “there is no proof that cigarette smoking is one of the causes [of cancer],” internally they documented a large number of known carcinogens in their products and replicated mainstream scientific research showing the health effects of smoking. Defendants’ internal documents acknowledge that their public denial that smoking cigarettes causes disease both was contrary to the overwhelming medical and scientific consensus – established through extensive epidemiological and other scientific investigation by the early 1950s – and was intended to convince smokers and potential smokers

that there remained genuine scientific “controversy” about whether smoking caused disease.

In their efforts to prevent restrictions on where and when people could smoke, in the face of growing evidence since the 1970s of the adverse health effects of secondhand smoke, Defendants engaged in similar conduct and misleading public statements concerning the health effects of secondhand smoke. Defendants approached the issue of the health effects of exposure to secondhand smoke, or environmental tobacco smoke (ETS) with a sense of urgency, based on their concern as expressed in internal documents, that in the United States, the ETS issue would have a devastating effect on sales. Defendants specifically saw concerns about the health effects of ETS as a threat to the "number of smokers & number of cigarettes they smoke." Defendants designed a sophisticated public relations and research strategy to attempt to "alter public perception that ETS is damaging," but did so despite their specific, internal acknowledgment that there was a "[I]ack of objective science" to support their public relations campaign. But this lack of objective science did not stand in Defendants' way. They asked: "Is \$100 million campaign worth an x increase in sales?" The answer: "Yes."

Just as Defendants long denied, contrary to fact, that smoking does not cause disease, Defendants also made numerous false and misleading statements denying that smoking is addictive over the past several decades. Indeed, no later than 1988, there was an overwhelming medical and scientific consensus that cigarette smoking was a drug-driven behavior of dependence, and that nicotine was the drug delivered in cigarette smoke responsible for creating and sustaining addiction. Relying on long discarded and discredited definitions of addiction, Defendants publicly attacked the scientific and medical evidence of addiction when, in fact, overwhelming documentary evidence demonstrates that Defendants openly recognized, from at

least the early 1960s, that nicotine was responsible for the pharmacological effects that keep people smoking. Indeed, researchers for Cigarette Company Defendants saw themselves as being in the “nicotine business” and conceived a pack of cigarettes as a “day’s supply of nicotine.” As with Defendants’ statements designed to undermine the scientific evidence of smoking’s harms, the statements denying addiction were knowingly false and misleading when made, and intended to avoid product regulation, to bolster the industry’s defenses in smoking and health litigation, and to avoid increasing consumers' concerns about smoking.

Defendants’ awareness of the critical importance of nicotine to the cigarette smoker, and thus to the continued profits of the industry, were such that the Defendants dedicated extraordinary resources studying nicotine and its effects on the smoker. The evidence shows that Defendants have long had the ability to modify and manipulate the amount of nicotine that their products could deliver (including removing all nicotine), and have studied extensively how every characteristic of every component of cigarettes – including the tobacco blend, the paper, the filter, and the manufacturing process – impacts nicotine delivery. Indeed, Cigarette Company Defendants' internal documents indicate that, in light of Cigarette Company Defendants’ recognition that “no one has ever become a cigarette smoker by smoking cigarettes without nicotine,” Cigarette Company Defendants have designed their cigarettes with a central overriding objective – to ensure that the smoker could obtain enough nicotine to create and sustain addiction. Accordingly, Defendants’ numerous public statements that they do not and have not manipulated the delivery of nicotine to the smoker are false.

The understanding of nicotine’s primary role in keeping people smoking and Cigarette Company Defendants’ desire to capitalize on smokers’ growing desire for a less hazardous

cigarette in the face of growing evidence of the health effects of smoking, underlie another central component of the scheme to defraud – the design and marketing of so-called “low tar/low nicotine” cigarettes. Cigarette Company Defendants have introduced new design features to counter and blunt the effects of landmark scientific and medical discoveries of smoking’s effects. Cigarette Company Defendants introduced and heavily promoted filtered cigarettes after the seminal epidemiological studies indicating a disease-causing role for smoking in the 1950s, and then developed and pushed “low tar/low nicotine” ventilated cigarettes with “reconstituted” or puffed tobacco in the years after the 1964 Surgeon General’s Report. Cigarette Company Defendants marketed these products as “safer” – first explicitly, later implicitly – to give smokers an alternative to quitting and thereby to keep them smoking and buying cigarettes. There is evidence that substantial percentages of smokers perceive “low tar/low nicotine” cigarettes (also described by other terms such as “light,” and “lowered tar”) as less hazardous than full-flavored brands a stepping stone to quitting. Cigarette Company Defendants made these design changes even though they had no actual evidence – and did not pursue any – that these features caused any measurable reduction in the harm to the growing population of “low tar” smokers. In fact, they had evidence to the contrary. The evidence establishes that Cigarette Company Defendants learned from their internal research that smokers of low tar products would modify their smoking behavior to obtain the needed dose of nicotine. This change in smoking behavior, known as “compensation,” resulted in smokers of “low tar” cigarettes receiving levels of tar that approached, if not exceeded, the amount of tar received by smokers of full-flavor cigarettes. Indeed, the wholesale shift to a market dominated by the sale of “low tar/low nicotine” products has not resulted in a meaningful reduction in the incidence of lung cancer and other smoking

related diseases.

Accordingly, Cigarette Company Defendants' touting of cigarettes as "low tar" has been misleading and deceptive. The "low tar/low nicotine" claim was based on the tar and nicotine yields as measured by a smoking machine in a test known as the FTC test. Under the FTC test, the machine "smoked" the cigarettes very differently from human smokers, in part because of human smoker's compensation. Cigarette Company Defendants were aware of this from their own research, and designed their cigarettes in a way that would yield low FTC tar and nicotine numbers, but would permit the smoker to obtain much higher yields of nicotine and tar. Until 1999 at the earliest, no Cigarette Company Defendant informed smokers of the effect of their decision to design cigarettes to provide elastic yields – that "low tar/low nicotine" cigarettes are likely to deliver tar and nicotine levels that bear little relation to, and likely far exceed, the reported FTC yields.

As part of the scheme to defraud, Cigarette Company Defendants have intentionally marketed cigarettes to youth under the legal smoking age while falsely denying that they have done and continue to do so. As is evident from Defendants' own documents, the Cigarette Company Defendants have long recognized that the continued profitability of the industry depends upon new smokers entering the "franchise" as smokers die from smoking-related diseases or quit. Defendants have similarly known that an overwhelming majority of regular smokers begin smoking before age eighteen. In 1966, Defendants, in the face of threatened federal advertising restrictions, adopted a voluntary advertising code in which they pledged to refrain from marketing activity likely to attract youth. Thereafter, Defendants continued unabated their efforts to capture as much of the youth market as possible, effectively ignoring the

voluntary advertising code and designing advertising themes, marketing campaigns, and promotional activities known to resonate with adolescents.

Defendants' internal documents indicate their awareness that the majority of smokers began smoking as youths and develop brand loyalty as youths, that youths were highly susceptible to advertising, and that persons who began smoking when they were teenagers were very likely to remain lifetime smokers. For example:

A March 31, 1981 report conducted by the Philip Morris Research Center entitled "Young Smokers Prevalence, Trends, Implications, and Related Demographic Trends" stated that "Today's teenager is tomorrow's potential regular customer, and the overwhelming majority of smokers first begin to smoke while still in their teens . . . it is during the teenage years that the initial brand choice is made."

A September 22, 1989 report prepared for Philip Morris by its main advertising agency, Leo Burnett U.S.A., described Philip Morris's marketing's target audience as a "moving target in transition from adolescence to young adulthood."

An August 30, 1978 Lorillard memorandum stated: "The success of NEWPORT has been fantastic during the past few years. . . . [T]he base of our business is the high school student. Newport in the 1970s is turning into the Marlboro of the 1960s and 1970s."

A July 9, 1984 report circulated to the heads of B&W's Marketing and Research Development departments stated "[o]ur future business depends on the size of [the] starter population."

In a November 26, 1974 memorandum entitled "R.J. Reynolds Tobacco Company Domestic Operating Goals, R.J. Reynolds stated its "[p]rimary goal in 1975 and ensuing years is to reestablish R.J. Reynolds's share of growth in the domestic cigarette industry," by targeting the "14-24 age group" who, "[a]s they mature, will account for key share of cigarette volume for next 25 years. Winston has 14% of this franchise, while Marlboro has 33%. - SALEM has 9%--Kool has 17%." The memorandum indicated that R.J. Reynolds "will direct advertising appeal to this young adult group without alienating the brand's current franchise."

A September 27, 1982 memorandum written by Diane Burrows, R.J. Reynolds Market Research Department, and circulated to L.W. Hall, Jr. Vice President of R.J. Reynolds Marketing Department, stated: "The loss of younger adult males

and teenagers is more important to the long term, drying up the supply of new smokers to replace the old. This is not a fixed loss to the industry: its importance increases with time. In ten years, increased rate per day would have been expected to raise this group's consumption by more than 50%."

Defendants targeted young people with their marketing efforts, their selection of which marketing activities to pursue and to shape the themes and images of those activities, and allocated substantial resources researching the habits and preferences of the youth market, including these research efforts. For instance:

An October 7, 1953 letter from George Weissman, Vice President of Philip Morris, discussed an August 1953 Elmo Roper report on a study of young smokers commissioned by Philip Morris, stating that "industry figures indicate that 47% of the population, 15 years and older, smokes cigarettes" and that "we have our greatest strength in the 15-24 age group."

The "1969 Survey of Cigarette Smoking Behavior and Attitudes" performed by Eastman Chemical Products for Philip Morris contained detailed analysis of beginning smokers, including interviews with 12-14 year olds.

A 1976 Brown & Williamson document containing information drawn from a study of smokers stated that "[t]he 16-25 age group has consistently accounted for the highest level of starters."

In 1958 and 1959, R.J. Reynolds commissioned a series of studies of high school and college students, interviewing in sum almost 20,000 students as young as high school freshmen regarding their smoking habits and brand preferences.

In 1980, the R.J. Reynolds Marketing Development Department issued a series of internal reports entitled "Teenage Smokers (14-17) and New Adult Smokers and Quitters" which surveyed the smoking habits of fourteen to seventeen year olds.

Knowing that advertising and promotion stimulated the demand for cigarettes, the Cigarette Company Defendants used their knowledge of young people's vulnerabilities gained in this research in order to create marketing campaigns (including advertising, promotion, and couponing) that would and did appeal to youth, in order to foster youth smoking initiation and

ensure that young smokers would choose their brands. These campaigns have intentionally exploited adolescents' vulnerability to imagery utilizing themes that are, to this day, the same as they have been for decades: independence, liberation, attractiveness, adventurousness, sophistication, glamour, athleticism, social inclusion, sexual attractiveness, thinness, popularity, rebelliousness and being "cool."

The Cigarette Company Defendants continue to advertise in youth-oriented publications; employ imagery and messages that they know are appealing to teenagers; increasingly concentrate their marketing in places where they know youths will frequent such as convenience stores; engage in strategic pricing to attract youths; increase their marketing at point-of-sale locations with promotions, self-service displays, and other materials; sponsor sporting and entertainment events, many of which are televised or otherwise broadcast and draw large youth audiences; and engage in a host of other activities which are designed to attract youths to begin and continue smoking. And yet, to this day, in the face of evidence of their explicit recognition of the importance of the youth market, research into the best ways to obtain the youth market, and development of advertising campaigns to designed to capture it that have remained largely unchanged for more than thirty years, the Defendants publicly deny their efforts to appeal to the youth.

Defendants' fraudulent scheme also has influenced how the Cigarette Company Defendants have designed their cigarettes. From the early 1960s, Defendants' cigarette design and research efforts were predicated on the understanding that the introduction of a cigarette that was actually less hazardous to its users would constitute an admission that all other cigarettes brands were more harmful. Accordingly, Defendants delayed and avoided development of

potentially safer products, chose not to incorporate design features that they believed were likely to reduce the delivery of harmful constituents in cigarette smoke, and failed to meaningfully test their cigarettes, including "low tar/low nicotine" brands, that they developed or actually sold in order to assess whether different design modifications actually reduced the harms caused by smoking. As a result, Defendants have collectively, in the past five decades, introduced and sold a paltry number of innovative products for which the companies failed, prior to their introduction, to pursue the evidence necessary to ascertain whether they present any actual likely harm reduction to humans.

Efforts to stifle innovation and enforce the understanding that less hazardous products should not be developed were aggressive. In one instance, after Defendant Liggett spent twelve years and \$15 million developing a cigarette – the XA – that its research showed to be significantly less carcinogenic than its conventional cigarettes, it killed the entire project before marketing the cigarette to consumers after Defendant Brown & Williamson threatened Liggett's "very existence" if it marketed the cigarette. Brown & Williamson also threatened to freeze Liggett out of joint defense agreements and exclude Liggett from the Tobacco Institute. Delivered through Brown & Williamson's representative on the Tobacco Institute's Committee of Counsel, the threat was based on Brown & Williamson's fear that selling XA would be an admission against the interest of all Cigarette Company Defendants.

In short, Defendants' scheme to defraud permeated and influenced all facets of Defendants' conduct – research, product development, advertising, marketing, legal, public relations, and communications – in a manner that has resulted in extraordinary profits for the past half-century, but has had devastating consequences for the public's health. There is substantial

evidence that, even after the 1998 Master Settlement Agreement, the global settlement that Philip Morris, R.J. Reynolds, Brown & Williamson, and Lorillard entered with the States, Defendants continue to engage in activities that further the aims and objectives of the longstanding fraudulent scheme.

As the preliminary proposed findings of fact demonstrate, the United States is entitled to the equitable relief sought under RICO, including disgorgement of proceeds in the amount of \$289 billion.

I**THE DEFENDANTS ESTABLISHED AN ENTERPRISE****A. Introduction**

1. The United States has established by a preponderance of the evidence the existence of an "enterprise" as defined in 18 U.S.C. § 1961(4) and as alleged in the First Amended Complaint, that is: Philip Morris Inc., ("Philip Morris"), R.J. Reynolds Tobacco Company ("R.J. Reynolds"), Brown & Williamson Tobacco Corporation ("Brown & Williamson" or "B&W"), Lorillard Tobacco Company, Inc. ("Lorillard"), Liggett Group, Inc. ("Liggett"), American Tobacco Company ("American"), Philip Morris Companies Inc. ("Philip Morris Companies"), British American Tobacco (Investments) Ltd. ("BATCo"), Council for Tobacco Research -- U.S.A., Inc. ("CTR"), the Tobacco Institute, Inc. ("Tobacco Institute"), and their agents and employees along with other entities and individuals constitute a group of entities and individuals associated in fact that functioned as a continuing unit for more than forty-five years to achieve shared goals, including to preserve and enhance the tobacco industry's profits and to avoid adverse liability verdicts in litigation in the face of the growing body of scientific and medical evidence about the health effects and addictiveness of smoking.

2. In furtherance of this primary objective, the Enterprise developed and executed a scheme to defraud the public in the following manner, among other means: (1) to deceive consumers into starting and continuing to smoke cigarettes by endeavoring to misrepresent and conceal the adverse health effects caused by smoking cigarettes and exposure to cigarette smoke and by maintaining that there was an "open question" as to whether smoking cigarettes causes disease and other adverse effects, despite the fact that Defendants knew otherwise; (2) to deceive

consumers into starting and continuing to smoke cigarettes by undertaking an obligation to take actions, including funding independent research, in order to determine if smoking cigarettes causes cancer or other diseases, while pre-selecting researchers and directing funds to irrelevant research and research that supported Defendants' positions on smoking and health issues; (3) to deceive consumers into becoming or staying addicted to cigarettes by maintaining that nicotine is not addictive, despite the fact that Defendants knew that nicotine is addictive; (4) to deceive consumers into becoming or staying addicted to cigarettes by manipulating the design of cigarettes and the delivery of nicotine to smokers, while at the same time denying that they engaged in such manipulation; and (5) to deceive consumers, particularly parents and children, by claiming that they did not market to children, while engaging in marketing and advertising with the intent of addicting children into becoming lifetime smokers; (6) to deceive consumers through deceptive marketing to exploit smokers' desire for less hazardous and "low tar" cigarettes; and (7) to deceive consumers regarding Defendants' concerted efforts not to make less hazardous cigarettes.

3. At all relevant times, as set forth more fully below, the Enterprise has existed separate and apart from Defendants' racketeering acts and their conspiracy to commit such acts. The Enterprise has an ascertainable structure and purposes beyond the scope and commission of Defendants' predicate racketeering acts. The Enterprise has a consensual decision making structure that, among other things, is used to coordinate strategy, manipulate scientific data, suppress the truth about the consequences of smoking, and otherwise further the goals of the Enterprise and Defendants' scheme to defraud which is described more fully in Section IV below.

B. The Enterprise Begins

(1) The Tobacco Industry Research Committee/Council for Tobacco Research

4. Between 1950 and 1952, scientific researchers published a series of epidemiological studies and animal experiments linking smoking to cancer in humans and animals. These results were widely reported in newspapers and magazines such as the New York Times (May 27, 1950), Reader's Digest (December 1952), and Life (December 21, 1953).

5. The Enterprise came into being not later than December 1953 when, to respond to the growing body of evidence that smoking caused lung cancer, Defendants and their agents developed and implemented a unified strategy that sought to "reassure" the public that there was no evidence that smoking causes disease.

6. In December 1953, Paul M. Hahn, President of American, sent telegrams to the presidents of the seven other major tobacco companies and one tobacco growers organization, inviting them to meet and develop an industry response to counter the negative publicity generated by the studies linking cigarette smoking and lung cancer. The telegrams were sent to E.A. Darr, President of Defendant R.J. Reynolds; Benjamin F. Few, President of Defendant Liggett; William J. Halley, President of Defendant Lorillard; Timothy V. Hartnett, President of Defendant Brown & Williamson; O. Parker McComas, President of Defendant Philip Morris; Joseph F. Cullman, Jr., President of Benson & Hedges; J.B. Hutson, President of Tobacco Associates, Inc.; and J. Whitney Peterson, President of United States Tobacco Company.

7. These industry executives (with the exception of Liggett) met in New York City at the Plaza Hotel on December 14, 1953. The meetings were also attended by representatives from Hill & Knowlton, the public relations advisors retained by the Enterprise.

8. At another meeting the next day, the participants, Paul Hahn of Defendant American, O. Parker McComas of Defendant Philip Morris, Joseph Cullman, Jr. of Benson & Hedges, and J. Whitney Peterson of United States Tobacco, viewed the "problem [posed by the scientific studies] as being extremely serious and worthy of drastic action." The industry executives agreed to go along with the public relations program on the health issue developed by Hill & Knowlton.

9. In an early internal planning memoranda, Hill & Knowlton assessed their tobacco clients' problems in the following manner:

There is only one problem -- confidence, and how to establish it; public assurance, and how to create it -- in a perhaps long interim when scientific doubts must remain. And, most important, how to free millions of Americans from the guilty fear that is going to arise deep in their biological depths -- regardless of any pooh-poohing logic -- every time they light a cigarette. No resort to mere logic ever cured panic yet, whether on Madison Avenue, Main Street, or in a psychologist's office. And no mere recitation of arguments pro, or ignoring of arguments con, or careful balancing of the two together, is going to deal with such fear now. That, gentlemen, is the nature of the unexampled challenge to this office.

10. On December 24, 1953, Hill & Knowlton submitted a proposal regarding the tobacco industry's public relations campaign, recommending that the companies form a joint industry research committee that would sponsor independent scientific research on the health effects of smoking and announce the formation of the research committee nationwide as news and in advertisements.

11. Another meeting was held at the Plaza Hotel on December 28, 1953, and was attended by Hahn of American; Darr of R.J. Reynolds; Herbert A. Kent, Chairman of Lorillard; Hartnett of Brown & Williamson; McComas of Philip Morris; Cullman of Benson & Hedges;

J.B. Hutson, President of Tobacco Associates, Inc.; Peterson of United States Tobacco; and three persons from the public relations firm of Hill & Knowlton, John Hill, Bert Goss, and Richard Darrow. The attendees agreed on Tobacco Industry Research Committee ("TIRC") as the official name of the committee; chose Paul Hahn as temporary chairman of the committee; agreed that the search should begin immediately for a qualified director who, together with the companies' research directors, would recommend members for the research advisory board; and reviewed and accepted the Hill & Knowlton proposal of December 24, 1953.

12. Defendant Liggett did not participate in the December meetings because the company felt that "the proper procedure is to ignore the whole controversy."

13. Following Hill & Knowlton's advice, the formation and purpose of TIRC was announced on January 4, 1954, in a full-page advertisement called "A Frank Statement to Cigarette Smokers" published in 448 newspapers throughout the United States.

14. The Frank Statement was subscribed to by the following domestic cigarette and tobacco products manufacturers, organizations of growers of leaf tobacco, and tobacco warehouse associations, which made up TIRC: Defendant American by Paul Hahn, President; Defendant Brown & Williamson Tobacco Corporation by Timothy Hartnett, President; Defendant Lorillard by Herbert Kent, Chairman; Defendant Philip Morris by O. Parker McComas, President; Defendant R.J. Reynolds by E.A. Darr, President; Benson & Hedges by Joseph Cullman, Jr., President; Bright Belt Warehouse Association by F.S. Royster, President; Burley Auction Warehouse Association by Albert Clay, President; Burley Tobacco Growers Cooperative Association by John Jones, President; Larus & Brother Company, Inc., by W.T. Reed, Jr., President; Maryland Tobacco Growers Association by Samuel Linton, General

Manager; Stephano Brothers Inc. by C.S. Stephano, Director of Research; Tobacco Associates Inc. by J.B. Hutson, President; and United States Tobacco by J. Whitney Peterson, President.

15. The Frank Statement set forth the industry's "open question" position that it would maintain for over the next forty years: there was no proof that cigarette smoking was a cause of lung cancer; cigarettes were not injurious to health; and more research smoking and health issues was needed. In the Frank Statement, the participating companies accepted "an interest in people's health as a basic responsibility, paramount to every other consideration in our business" and pledged "aid and assistance to the research effort into all phases of tobacco use and health." The companies promised that they would fulfill the obligations they had undertaken in the Frank Statement by funding independent research through TIRC, free from industry influence.

16. The "Frank Statement" in its entirety provided as follows:

RECENT REPORTS on experiments with mice have given wide publicity to a theory that cigarette smoking is in some way linked with lung cancer in human beings.

Although conducted by doctors of professional standing, these experiments are not regarded as conclusive in the field of cancer research. However, we do not believe that any serious medical research, even though its results are inconclusive should be disregarded or lightly dismissed.

At the same time, we feel it is in the public interest to call attention to the fact that eminent doctors and research scientists have publicly questioned the claimed significance of these experiments.

Distinguished authorities point out:

1. That medical research of recent years indicates many possible causes of lung cancer.

2. That there is no agreement among the authorities regarding what the cause is.

3. That there is no proof that cigarette smoking is one of the causes.

4. That statistics purporting to link cigarette smoking with the disease could apply with equal force to any one of many other aspects of modern life. Indeed the validity of the statistics themselves is questioned by numerous scientists.

We accept an interest in people's health as a basic responsibility, paramount to every other consideration in our business.

We believe the products we make are not injurious to health.

We always have and always will cooperate closely with those whose task it is to safeguard the public health.

For more than 300 years tobacco has given solace, relaxation, and enjoyment to mankind. At one time or another during these years critics have held it responsible for practically every disease of the human body. One by one these charges have been abandoned for lack of evidence.

Regardless of the record of the past, the fact that cigarette smoking today should even be suspected as a cause of disease is a matter of deep concern to us.

Many people have asked us what are we going to do to meet the public's concern aroused by the recent reports. Here is the answer:

1. We are pledging aid and assistance to the research effort into all phases of tobacco use and health. This joint financial aid will of course be in addition to what is already being contributed by individual companies.

2. For this purpose we are establishing a joint industry group consisting initially of the undersigned. This group will be known as TOBACCO INDUSTRY RESEARCH COMMITTEE.

3. In charge of the research activities of the Committee will be a scientist of unimpeachable integrity and national repute. In addition there will be an Advisory Board of scientists disinterested

in the cigarette industry. A group of distinguished men from medicine, science, and education will be invited to serve on this Board. These scientists will advise the Committee on its research activities.

This statement is being issued because we believe the people are entitled to know where we stand on this matter and what we intend to do about it.

17. The issuance of the "Frank Statement to Cigarette Smokers" was an effective preemptive strategy that was intended to allay concerns about smoking and health and provide a rationale for continuing to smoke.

18. Stanley Barnes, Assistant Attorney General, United States Department of Justice, "read with interest the statement of the Tobacco Industry Research Committee which appeared in the newspapers on January 4, 1954, regarding the Committee's pledge of aid and assistance to the research effort into all phases use and health" and had sent a letter to TIRC on January 21, 1954, requesting "as many details on the Committee's plans as you may care to disclose at this time." In response, TIRC Chairman Paul Hahn sent a letter to Barnes dated January 26, 1954, enclosing a statement of the origin, purpose, and proposed functions of TIRC.

19. The statement of origin and purpose was signed in the name of TIRC by Chairman Paul Hahn, was ratified and adopted by TIRC, and attached as Exhibit A to the Bylaws of the Tobacco Industry Research Committee.

20. The TIRC bylaws (subscribed and adopted by the signatory members effective January 1, 1954) stated that the "purposes and objectives of the Committee are to aid and assist research into tobacco use and health, and particularly into the alleged relationship between the use of tobacco and lung cancer and to make available to the public factual information on this subject." All of the bylaws could be altered and repealed by a majority vote of TIRC's corporate

members, except that "Article I. Purposes and Objectives" could only be altered with the unanimous consent of all the corporate members.

21. The statement of origin and purpose stated that TIRC had engaged the public relations firm of Hill & Knowlton to assist TIRC in effectuating its purpose.

22. The TIRC bylaws stated that each corporate member of the TIRC "shall from time to time appoint an individual to serve as the personal member of the Committee representing such corporate member" and that a majority of the personal members of TIRC would select such officers, agents, and employees as they deemed necessary, including a Chairman to serve for a term of one year and until his successor is elected and qualified.

23. The first officers selected by TIRC members were Paul Hahn of Defendant American as temporary Chairman; J. Whitney Peterson of United States Tobacco as Vice Chairman; Joseph Cullman of Benson & Hedges as Treasurer; and Wilson Thomas Hoyt of Hill & Knowlton as Secretary.

24. TIRC bylaws described the method of funding TIRC as follows: "Each of the cigarette manufacturing corporate members has pledged to the Committee for payment before or during 1954 an amount equal to 1/4 of a cent for each one thousand of tax-paid cigarettes produced by such company in 1953 as estimated by Harry M. Wootten and published under the date of January 15, 1954, and has pledged to the Committee for payment during 1954 an additional amount equal to one-half of the amount originally pledged."

25. Liggett was a member of CTR from 1964 to 1969; but even when it was not a member, Liggett made contributions to CTR's Special Projects fund from 1966 through 1975 and to CTR's Literature Retrieval Division from 1971 through 1983. See Appendix Tables B and C.

26. From 1954 through October 31, 1999, payments to CTR's General Fund from Defendants totaled \$473,369,512.22: \$31,928,239.26 from American; \$67,666,080.25 from Brown & Williamson; \$40,747,457.89 from Lorillard; \$189,506,678.86 from Philip Morris; \$141,890,169.04 from R.J. Reynolds; and \$721,868.85 from Liggett. See Appendix Table A.

27. From 1966 through October 31, 1990, payments to CTR's Special Projects fund from the Cigarette Company Defendants totaled \$18,270,623.65: \$29,665.00 from American; \$2,571,345.40 from Brown & Williamson; \$144,254.75 from Liggett; \$1,638,490.68 from Lorillard; \$5,837,923.49 from Philip Morris; and \$6,029,255.33 from R.J. Reynolds. See Appendix Table C.

28. From 1971 through April 15, 1983, payments to CTR's Literature Retrieval Division from the Cigarette Company Defendants totaled \$16,870,480.00: \$2,214,135.00 from American ; \$2,681,358.00 from Brown & Williamson; \$606,043.50 from Liggett; \$811,840.50 from Lorillard; \$4,813,415.50 from Philip Morris; and \$5,743,687.50 from R.J. Reynolds. See Appendix Table B.

29. At their January 29, 1964 meeting, the TIRC Executive Committee agreed to change the name of the organization to the Council for Tobacco Research-U.S.A. ("CTR"). The organization bylaws were amended February 1, 1964, to reflect the name change. In the amended bylaws, the purposes and objectives of CTR continued to be "to aid and assist research into tobacco use and health, and particularly into the alleged relationship between the use of tobacco and lung cancer and to make available to the public factual information on this subject." Timothy Hartnett announced the organization name change in a March 1964 press release.

30. In 1971, CTR changed from an unincorporated association to a corporation

pursuant to the laws of the State of New York. CTR's Certificate of Incorporation was filed with the Department of State of the State of New York on January 8, 1971. The bylaws of the newly-formed corporation were adopted at the first meeting of CTR's Board of Directors on January 13, 1971.

(2) Selection and Approval of SAB Members and the Scientific Director

31. The first formal meeting of TIRC was held on January 18, 1954. At this first formal meeting, a budget of \$1,200,000 was approved; an agreement between TIRC and Hill & Knowlton was approved; the research program, calling for a Scientific Director and a Scientific Advisory Board ("SAB") was approved; a Law Committee was appointed; and the research directors of member companies were designated as the Industry Technical Committee.

32. The Law Committee was composed of George Whiteside of Chadbourne, Parke, Whiteside, Wolff & Brophy (Law Committee Chairman); John Vance Hewitt of Conboy, Hewitt, O'Brien & Boardman; Leighton Coleman of Davis, Polk, Wardwell, Sunderland & Kiendl; Mr. Wadlinger of Foulk, Porter & Wadlinger; and Freeman Daniels of Perkins, Daniels & Perkins. This committee drafted the TIRC bylaws.

33. The research directors of TIRC's tobacco company members had held an informal meeting on January 7, 1954, at which they discussed qualifications for a Scientific Research Director for TIRC and their efforts to find and retain a suitable scientist of the qualifications described in the Frank Statement. The research directors were H.R. Hanmer of Defendant American; Irwin W. Tucker of Defendant Brown & Williamson; H.B. Parmele of Defendant Lorillard; Robert N. DuPuis of Defendant Philip Morris; Grant Clarke of Defendant R.J. Reynolds; Hugh Cullman of Benson & Hedges; Clinton Baber of Larus & Bros.; C.S. Stephano

of Stephano Brothers; and W.B. Bennett of United States Tobacco.

34. The original plan was to select a Scientific Research Director who would guide and advise TIRC members as they fulfilled obligations set forth in the Frank Statement, including selection of members for the SAB. A subcommittee of the Industry Technical Committee ("ITC"), headed by Grant Clarke, Research Director for Defendant R.J. Reynolds, felt that the SAB "should be composed only of scientific people actively engaged in specific fields having a bearing on the problem at hand" and that the appointments to the SAB "should be based upon recommendations from the Scientific Research Director and subject to the approval of the ITC, with final approval of the TIRC." The subcommittee sought out a scientist who would fill the job, but encountered reluctance on the part of scientists to become affiliated with TIRC.

35. As time passed, TIRC decided to reverse the order and proceed with enlisting a SAB first – hoping that the scientists would feel more comfortable as members of a group – and then having the SAB select the Scientific Research Director.

36. The ITC, public relations counsel Hill & Knowlton, and TIRC's Law Committee played active roles in the selection of the scientists appointed to TIRC's SAB. John Hill of Hill & Knowlton was actively involved in searching for, interviewing, and selecting the first SAB members. The ITC screened those candidates being considered for membership on the SAB. The TIRC Law Committee was involved in clearing prospective members for the SAB.

37. Letters were sent to nine scientists inviting them to be members of the SAB and acceptances were obtained from seven; the two who did not accept were scientists connected with the National Cancer Institute.

38. The first meeting of the SAB was held on April 26, 1954. Clarence Cook Little

was chosen by the SAB members as their Chairman. At the second meeting of the SAB, Little was selected as Scientific Director on a part-time basis with an assistant who would serve on a full-time basis. In November 1954, Robert Hockett filled the assistant post as Associate Scientific Director.

39. When Little died in 1971, Helmut Wakeham of Philip Morris complained that finding a Scientific Director to succeed Little "was in the hands of the lawyers committee" and the Tobacco Institute without reference to or input from CTR or company scientists.

40. The CTR Board of Directors exercised control over the CTR research grant program throughout its existence by approving the amount of funding for the grant program and by selecting the CTR Scientific Directors and their staff.

(3) Public Relations and TIRC

41. From the outset, the dual functions of TIRC – public relations and scientific research – were intertwined. In December 1953, Timothy Hartnett, President of Brown & Williamson, summarized the crisis of the industry in the following terms: "But cancer research, while certainly getting our support, can be only half an answer. . . . The other side of the coin is public relations . . . [which] is basically a selling tool and the most astute selling may well be needed to get the industry out of this hole. . . . It isn't exaggeration that no public relations expert has ever been handed so real and yet so delicate a multi-million dollar problem. . . . Finally, one of the roughest hurdles which must be anticipated is how to handle significantly negative research results, if, as, and when they develop."

42. In his 1955 administrative reports to TIRC, Wilson Hoyt, TIRC Executive Secretary and Hill & Knowlton executive, wrote about the relationship of public relations and

research in TIRC's program. In his April 1955 Statement, he explained: "Essentially, the major purposes of the TIRC are Research and Public Relations. Our job is to maintain a balance between the two, and to continue to build soundly so that at all times Research and Public Relations complement each other. In that way we intend to assume the mantle of leadership and, ultimately, to create a condition where the public will look to the TIRC for answers rather than to others." In his January 1955 Statement, he had written: "Within this framework we have furthered and coordinated the two major purposes for which the Committee was organized namely, the public relations phase and the research program."

43. A white paper titled "A Scientific Perspective on the Cigarette Controversy" was one of the first projects undertaken by Hill & Knowlton on behalf of their new client TIRC. Defendants perceived an urgent need for the white paper project to help soothe the fears of the public. John Hill of Hill & Knowlton described the booklet as "excerpts from important scientific articles published in this country and abroad which present a balanced view of the situation and particularly which present the other side of the controversy, as distinguished from the view promoted by Doctors Graham, Ochsner and Wynder, who have contended that cigarette smoking caused cancer." The white paper was one of the earliest attempts by Defendants to offer reassuring "science" to smokers, when, in fact, many of the contributors to the white paper had close ties to the industry.

44. "A Scientific Perspective on the Cigarette Controversy" was released April 14, 1954 with 205,000 copies being printed. Since the white paper might have been perceived as commercial in character and designed to promote the smoking of tobacco, distribution was limited. The booklet was sent to 176,800 doctors, as well as to deans of medical and dental

colleges. The booklet with a press release went to a press distribution of 15,000, including editors of daily and weekly newspapers, consumer magazines, veterans magazines, and medical and dental journals; news syndicate managers; business editors; editorial and science writers; radio and TV commentators; news columnists; and Member of Congress. The press release was also sent to some 1,400 radio stations. The white paper reaffirmed the promise of the Frank Statement – that the industry accepted an interest in people's health as a basic responsibility and paramount to every other consideration in their business – and then went on to set forth findings that indicated that the scientific evidence was not conclusive.

45. Timothy Hartnett became the full-time chairman of TIRC on July 1, 1954, the day after his retirement as President of Brown & Williamson. According to the press release announcing his appointment, Hartnett stated that the

tobacco industry is determined to find the answers to the public's questions about smoking and health. The appointment of a full-time chairman completes an organization dedicated to carrying on comprehensive and objective scientific and statistical research to establish the facts and report them to the public. . . . It is an obligation of the Tobacco Industry Research Committee at this time to remind the public of [some] essential points: (1) There is no conclusive scientific proof of a link between smoking and cancer; (2) Medical research points to many possible causes of cancer; . . . (5) The millions of people who derive pleasure and satisfaction from smoking can be reassured that every scientific means will be used to get all the facts as soon as possible."

46. TIRC's research program never escaped its public relations origins. As Alexander Spears, Lorillard's Director of Research, explained in 1974:

Historically, the joint industry funded smoking and health research programs have not been selected against specific scientific goals, but rather for various purposes such as public relations, political relations, position for litigation, etc. Thus, it seems obvious that reviews of such programs for scientific relevance and merit in the

smoking and health field are not likely to produce high ratings. In general, these programs have provided some buffer to the public and political attack of the industry, as well as background for litigious strategy.

47. In a 1963 memorandum, Addison Yeaman, General Counsel for Brown & Williamson, acknowledged that TIRC had principally acted as a public relations unit: "The TIRC cannot, in my opinion, provide the vehicle for such research. It was conceived as a public relations gesture and (however undefiled the Scientific Advisory Board and its grants may be) it has functioned as a public relations operation."

48. TIRC focused its energies and resources in two areas. First, it served as a public relations unit for the industry, especially in relation to growing public concerns about the risk of smoking, repeatedly attacking scientific studies that demonstrated the harms of cigarette smoke and working to reassure smokers about cigarettes. Second, it developed a research program that focused on basic processes of disease and that was distant from, if not completely irrelevant to, evaluating the immediate and fundamental questions of the health effects associated with smoking – the very subject that the industry had pledged to pursue through CTR.

49. Under Little's leadership, the major thrust of TIRC was to emphasize that human cancers were complex processes, difficult to study, and difficult to understand. Virtually none of the research funded by TIRC/CTR centered on immediate questions relating to epidemiology or carcinogenesis of smoke. Helmut Wakeham, Vice President and Director of Research for Philip Morris, admitted that CTR had not freely pursued the health impact of tobacco: "It has been stated that CTR is a program to find out the 'truth about smoking and health.' What is truth to one is false to another. CTR and the Industry have publicly and frequently denied what others find as 'truth.' Let's face it. We are interested in evidence which we believe denies the allegation

that cigarette smoking causes cancer."

50. TIRC did not pursue direct research on cigarettes and disease. Instead, TIRC directed the predominance of its resources to alternative theories of the origins of cancer, centering on genetic factors and environmental risks.

51. After a visit to the United States in the fall of 1964, two scientists from the United Kingdom wrote in their report: "As we know, CTR supports only fundamental research of little relevance to present day problems."

52. After another visit to the United States in 1973 during which they met with Defendants' representatives, attorneys, and scientists, Geoffrey F. Todd, Executive Director of the Tobacco Research Council ("TRC"), the United Kingdom's organization equivalent to CTR, wrote that "[i]t was difficult to avoid the sad conclusion that C.T.R. has become a backwater of little significance in the world of smoking and health."

53. In late 1957, the Tobacco Information Committee, a subcommittee of TIRC, was formed from what was previously known as the Public Relations Committee. The Tobacco Information Committee published the first two issues of the "Tobacco and Health" newsletter on behalf of the industry. The "Tobacco and Health" newsletter contained articles that disputed the relationship between smoking and disease; criticized research supporting such a relationship; and emphasized that differing opinions existed regarding tobacco use and health. After its creation in 1958, the Tobacco Institute assumed responsibility for publishing the "Tobacco and Health" newsletter on behalf of Defendants.

54. From October 1957 to at least 1968, TIRC and then the Tobacco Institute published the newsletter under various names, such as "Tobacco and Health," "Research Reports

on Tobacco and Health," and "Reports on Tobacco and Health Research." The newsletter was published two or three times a year and in 1962 reached a circulation of 520,000, with about 315,000 copies going to doctors, dentists, and medical schools, with the rest going to writers and editors, public opinion leaders, brokerage houses, tobacco groups, farm and supplier groups, industry groups, and member companies. Publication of research results helped make news and was coordinated with other publicity efforts.

55. According to Hill & Knowlton, the primary purpose of the newsletter was to present directly to the medical and scientific communities research material related to tobacco and health – material that frequently did not deal with tobacco but suggested other causes of cancer, such as viruses, air pollution, and previous chest ailments. A secondary purpose was to attract the attention of the lay press to studies that challenged the validity of research linking cancer to cigarette use. According to Hill & Knowlton, four non-governmental health agencies began issuing a "Medical Bulletin on Tobacco" in 1962 in order to combat the effects of the "Tobacco and Health" newsletter.

56. In the "Tobacco and Health" newsletters, the Enterprise often issued public statements reaffirming promises it had made about TIRC: "[TIRC's] purpose is solely to obtain new information and to advance human knowledge in every possible phase of the tobacco and health relationship."

57. The Enterprise directed public attention to TIRC/CTR's research and based public statements thereon in order to have the public believe that the tobacco industry was objectively researching the relationship between smoking and disease, and to perpetuate the industry's open controversy position. For example, Hill & Knowlton's 1959 Public Relations Report to TIRC

explained that:

Comment from TIRC for the press remains an effective way to meet anti-tobacco publicity efforts and emphasizes the multiple factors that should be considered. This, of course, is complemented with a continuing program of supplying information to give editors and writers a balanced perspective on questions of tobacco and health.

58. TIRC's responses to the public statements emerging from groups of scientists and policy-makers were consistent with TIRC's general message. In November 1959, United States Surgeon General Leroy E. Burney's assessment of the scientific evidence linking cigarettes to lung cancer was published in the November 28 issue of the Journal of the American Medical Association. See Section IV.A below. Hill & Knowlton, having anticipated the appearance of the Burney article and learned of its contents in advance of publication, provided the press with statements made by TIRC Scientific Director Clarence Cook Little about the Surgeon General's statement.

59. Press stories used the TIRC Scientific Director's statements in covering the Surgeon General's article:

Despite the recent research trends, the conclusions set forth in the Public Health Service review rely almost entirely on past reports that are no more conclusive today than when these reports were first published. Most of the points are not new but are familiar to the American public because they were first advanced some years ago in statistical studies that admittedly are not supported by experimental evidence.

60. TIRC/CTR issued Annual Reports from 1956 through 1997. The TIRC/CTR Annual Reports routinely included, in varying formats, abstracts of articles published by researchers funded by TIRC/CTR grants; brief statements regarding organization and policy; lists of SAB members and their affiliations; lists of grantees; lists of ongoing and completed projects;

and research summaries, commentaries, rationales, and observations.

61. TIRC/CTR Annual Reports were sent to medical editors at newspapers, medical editors for television programs, deans of colleges and universities in the United States, libraries at colleges and universities, college and university grant offices, the CTR board of directors, members of the CTR SAB, the CTR grantees, CTR class A and B members, and the Tobacco Institute.

62. Belying the purported "independence" of TIRC/CTR, the commentary in the Annual Reports uniformly challenged the hypothesis that smoking was linked to lung cancer and emphasized that data regarding smoking and health were controversial, contradictory, and inconclusive:

- 1957 Report of the Scientific Director ("sound medical and experimental knowledge of tobacco use is relatively limited, at times contradictory, and often conjectural rather than factual. . . . There is not known today any simple or quick way to answer the question of whether any one factor has role in causing human lung cancer . . . no one has established that cigarette smoke, or any one of its know constituents, is cancer causing to man. . . . Members of the [TIRC SAB] Board take the general position that definitive conclusions or predictions of individual risks are unwarranted by the present imperfect state of knowledge in the complex field of lung cancer causation," and describing cancer as "this so-called constitutional disease")
- 1958 Report of the Scientific Director ("a problem may well be obscured, and its solution delayed, by the soothing acceptance of an oversimplified and immature [tobacco theory] hypothesis. . . . The proponents of the tobacco theory have generated increasingly intensive and extensive propaganda. . . . As a result, a non-scientific atmosphere, conducive to prematurity, unbalance, and inadequacy of public judgement, has pervaded the whole field. . . . The prohibition concept discounts or ignores all considerations of smoking benefits in terms of pleasure, relaxation, relief of tension or other functions.")
- 1961 Report of the Scientific Director ("[T]hose who most actively promote this [smoking-lung cancer] hypothesis have consistently ignored

or, at best, have minimized the fact that numerous directly relevant experiments either have failed to support the hypothesis or have provided only weak or uncertain data.")

- 1964-65 Report of the Scientific Director ("[E]vidence to support the thesis that cigarettes exercise a direct carcinogenic effect on man has not been forthcoming.")
- 1978 Report of the Council for Tobacco Research-U.S.A., Inc ("[T]he complex etiology of these constitutional diseases [cancer, heart disease, chronic pulmonary ailments] remains unraveled. These diseases have been associated statistically with smoking, but such associations are not proof of cause and effect.")

63. For more than two decades, the Annual Reports continued to discount the conclusions reached by the public health community and the Surgeon General linking smoking and disease and presented a view biased toward the open question position of the tobacco industry.

64. The relationship between TIRC/CTR and Hill & Knowlton remained close for many years. Because TIRC had no headquarters and no staff when it started up, Hill & Knowlton provided a working staff and temporary office space and assigned one of its experienced executives Wilson T. Hoyt to serve as executive secretary for the TIRC. In early 1956, the TIRC Executive Committee approved the removal of TIRC's offices to the building where Hill & Knowlton's offices were located. At their January 29, 1964 meeting, the TIRC Executive Committee agreed to immediately transfer seven Hill & Knowlton employees, including Hoyt, to TIRC.

65. Even after the Tobacco Institute was created, CTR continued its public relations functions, and continued to retain public relations advisor Hill & Knowlton until 1969 and Leonard Zahn, one of Hill & Knowlton's former employees, until dissolution.

66. Under Clarence Cook Little's leadership, TIRC never wavered from its essential mission of insisting that a genuine scientific controversy existed regarding the causal link between smoking cigarettes and adverse health effects. In 1958, three British scientists, D.G.I. Felton from BATCo, H.R. Bentley, and W.W. Reid visited the United States for four weeks and met with representatives of Defendant American, Defendant Liggett, Defendant Philip Morris, Defendant TIRC/CTR, the SAB of TIRC/CTR, the Industry Technical Committee, and others. The BATCo scientists reported that "Liggett & Meyers stayed out of TIRC originally because they doubted the sincerity of TIRC's motives and believed that the organization was too unwieldy to work efficiently. They remain convinced that their misgivings were justified. In their opinion TIRC has done little if anything constructive, the constantly reiterated 'not proven' statements in the face of mounting contrary evidence has thoroughly discredited TIRC, and the SAB of TIRC is supporting almost without exception projects which are not related directly to smoking and lung cancer."

67. In addition to providing direct contact between BATCo and TIRC, Brown & Williamson was often the conduit between BATCo and other members of the Enterprise. A 1962 BATCo report states that "T.I.R.C. occupies an analogous position [to the Tobacco Manufacturers Standing Committee or TMSC] and our contact there is through Brown & Williamson."

68. Frequent communications with Brown & Williamson kept BATCo and the rest of the Enterprise apprized of each other's decisions and activities. In an October 1965 memo to Edwin Finch, Brown & Williamson's President, Addison Yeaman of Brown & Williamson wrote that he planned "to meet with [Ed] Jacob, and hopefully [David] Hardy, and C.T.R. early in

November" to discuss the Harrogate report. Both Jacob and Yeaman felt it "highly desirable that there be a full exchange between T.R.C." and a small group from the United States prior to commencing preparation of the Harrogate report because "it would be far easier to influence the tone and even the context of the report . . . before it is written, than it would be to 'rewrite' a completed report." In a February 1966 letter to Anthony D. McCormick of BATCo, Yeaman discussed developing a closer liaison between England's Harrogate, Hamburg, and CTR in the United States and organizing a small group with Ed Finch, Chairman of the Tobacco Institute, as its head to coordinate research efforts by the tobacco industries of England, Germany, and the United States.

C. The Tobacco Institute

(1) Formation of The Tobacco Institute

69. By the late 1950s, TIRC's public relations function was causing a growing resentment on several fronts. Some SAB members wanted a more distinct separation between the SAB and TIRC. One argument advanced was that it did not appear appropriate for TIRC to be making "partisan" arguments on behalf of the industry while at the same time sponsoring research that was supposed to be objective. Moreover, some Defendants wanted an organization that would take a much more aggressive public relations stance to counter arguments linking smoking and disease.

70. This disquiet contributed, at least in part, to the formation of a nonprofit corporation, the Tobacco Institute, in January 1958 to assume many of the public relations functions of TIRC/CTR.

71. In January 1958, twelve manufacturers of cigarettes, smoking and chewing

tobacco, and snuff jointly announced the formation of the Tobacco Institute. The companies forming the Tobacco Institute included American, Brown & Williamson, Liggett, Lorillard, Philip Morris, and R.J. Reynolds.

72. The Tobacco Institute was incorporated in New York State. According to the Certificate of Incorporation, New York City and the District of Columbia were the corporation's territory of operations; its principal office was in New York City; the number of the Tobacco Institute Board of Directors was to be not less than three nor more than twenty-five.

73. The first meeting of the Tobacco Institute Board of Directors was held on January 30, 1958. Former Congressman James Richards of South Carolina was elected President and Executive Director; Joseph F. Cullman, III, President of Defendant Philip Morris, was elected Treasurer; Chandler Kibbe, Vice President of Defendant Philip Morris, was elected Assistant Treasurer. An Executive Committee was set up, and appointed as members were Cullman; Benjamin Few, President of Liggett; Bowman Gray, Chairman of R.J. Reynolds; Lewis Gruber, President and Chairman of Lorillard; and J. Whitney Peterson, President of United States Tobacco. Covington & Burling was appointed legal counsel to the Tobacco Institute, and Hill & Knowlton was appointed public relations counsel.

74. At that first meeting of the Tobacco Institute's Board of Directors, the bylaws were amended to read in Art. III, Section 1, that "Each member elected pursuant to Article II shall pay annual dues (1) in the amount of \$100 or (b) at the rate of (i) one twentieth of a cent for every thousand tax-paid cigarettes plus (ii) 5 cents for every thousand pounds of manufactured tobacco produced by it during the preceding calendar year, which of (a) or (b) shall be larger."

75. Although the membership fluctuated during the existence of the Tobacco Institute

(1958 to the present), all of Defendants (except BATCo, CTR, and the Tobacco Institute itself) created, agreed to fund, and/or did jointly fund the Tobacco Institute over the years. From 1958 through 1999, payments to the Tobacco Institute from Defendants amounted to more than \$618,432,000: \$19,146,216 from American; \$15,933,769 from Brown & Williamson; \$1,848,530 from Liggett; \$29,195,668 from Lorillard; \$161,505,876 from Philip Morris; and \$110,298,387 from R.J. Reynolds.

76. At a special meeting of the membership in March 1973, the Tobacco Institute amended its bylaws to create two classes of membership. Class A members were the cigarette manufacturers (those members who as of the date of any election of directors would be subject to additional dues assessment per Art. III, Sec. 1 of the bylaws). Class A members would be entitled to elect twice the number of directors as there were Class A members. Members not subject to such assessment would be entitled to elect the same number of directors as there were Class B members. At that meeting, five additional directors then were elected to the Tobacco Institute Board of Directors for a total of thirteen directors: Joseph E. Edens, President of Brown & Williamson; Curtis H. Judge, President of Lorillard; Ross R. Millhiser, Vice Chairman of Philip Morris; Raymond Mulligan, President of Liggett; and William S. Smith, Chairman of R.J. Reynolds. In addition, the members determined that the chief executive of each membership company would be designated to serve on the Tobacco Institute Executive Committee. William Smith was elected Tobacco Institute Executive Committee Chairman and Curtis H. Judge was elected Tobacco Institute Executive Committee Vice Chairman.

77. According to its 1958 Certificate of Incorporation, the purposes for which the Tobacco Institute was formed were "to promote a better understanding by the public of the

tobacco industry and its place in the national economy; to cooperate with governmental agencies and public officials with reference to the tobacco industry; to collect and disseminate information relating to the use of tobacco; to collect and disseminate scientific and medical material relating to tobacco; to collect and disseminate information relating to the tobacco industry published or released by an governmental agency, federal or state, or derived from other sources independent of the industry; to collect an disseminate information relating to legislative and administrative developments, federal or state, affecting the tobacco industry; to promote public good will."

78. Despite these publicly stated purposes, the privately articulated primary functions of the Tobacco Institute included advancing – through press releases, advertisements, publications, and other public statements – Defendants' primary position that there were legitimate scientific and medical doubts concerning the relationship between smoking and disease; disputing statements from health organizations about smoking and disease, and later about second hand smoke and disease; making certain that Defendants' positions on issues related to the connection between smoking and disease and second hand smoke and disease were kept constantly before the public, the medical community, the press, and the government; selectively using the results of TIRC/CTR research projects and other industry-sponsored research projects to question the charges against smoking, to emphasize the complexities of those diseases with which smoking has been statistically associated, and to reassure the public that the industry was actively investigating the issues; denying that cigarette smoking was addictive; minimizing the difficulties of quitting smoking; and denying that the industry marketed to children.

79. A 1966 document titled "The 'Mission' of the President of the Tobacco Institute"

explained that to meet its objectives "the full resources of the Institute must be directed toward a consistent and positive program to gain public exposure to research results and scientific opinions that question the charges against smoking and that point up the complexities of those diseases with which smoking has been statistically associated."

80. Prior to the formation of the Tobacco Institute, Hill & Knowlton served the tobacco industry on an advisory basis. In 1958, when the Tobacco Institute was created, Hill & Knowlton was employed on a full time basis to serve as public relations representative to the tobacco industry.

(2) Tobacco Institute Committees

81. The Tobacco Institute was run by a variety of committees, which were made up of representatives from Philip Morris, Lorillard, Liggett, R.J. Reynolds and Brown & Williamson, their agents, and Tobacco Institute employees. The most important Tobacco Institute committees were the Tobacco Institute Committee of Counsel, the Tobacco Institute Executive Committee, and the Tobacco Institute Communication Committee.

82. The Tobacco Institute Committee of Counsel was comprised of the general counsels of the sponsoring companies of the Tobacco Institute – Philip Morris, R.J. Reynolds, Lorillard, Liggett, and Brown & Williamson. Other representatives of the Tobacco Institute and industry lawyers such as David Hardy and William Shinn of Shook, Hardy & Bacon and Edwin Jacob of Jacob, Medinger & Finnegan also attended Tobacco Institute Committee of Counsel meetings.

83. The primary function of the Committee of Counsel's role was described in a document prepared by Ernest Pepples, General Counsel for Brown & Williamson, as follows:

"the primary function of this Committee of Counsel has been to circle the wagons, to coordinate not only the defense of active cases, but also to coordinate the advice which the General Counsels give to ongoing operations of their companies pertaining to products liability issues."

84. The Committee of Counsel met frequently and the agenda of the Committee of Counsel meetings covered a wide range of topics that were of concern to the Defendants. For example, a May 23, 1964 memorandum prepared by Abe Krash, a partner with Arnold, Fortas & Porter, discussed a May 7, 1964 meeting of Henry Ramm, General Counsel for R.J. Reynolds; Cyril Hetsko, General Counsel for American; Frederick Haas, General Counsel for Liggett; John Russell, Counsel for Lorillard; Paul Smith, Associate General Counsel for Philip Morris; Addison Yeaman, General Counsel of Brown & Williamson; H. Thomas Austern, attorney with Covington & Burling; and Robert Wald, attorney with Wald, Harkreder & Rockefeller. Krash described the decision to proceed, on a preliminary basis, with a public opinion survey on the public awareness of the health issues involving cigarette smoking, which might be used as a basis for testimony at congressional hearings to support the position that labels and warnings in advertisements were not necessary.

85. As another example, according to a November 1977 document authored by attorney Janet Brown, outside counsel to American, in April 1975, Arthur Stevens of Lorillard was the Chairman of the Committee of Counsel and Thomas Ahrensfeld of Philip Morris, D. Bryant of Brown & Williamson, Frederick Hass of Liggett, and Henry Roemer of R.J. Reynolds were members. It was proposed that the Committee of Counsel discuss a genetic project to be undertaken at Colorado-Hawaii that was being addressed by the Research Liaison Committee. See Section I.H. below for discussion of the Research Liaison Committee.

86. A December 9, 1977 memorandum from Max Crohn, Assistant General Counsel of R.J. Reynolds, to the Committee of Counsel discussed the Committee's December 8, 1977 meeting and his appointment as chair of a subcommittee "that will begin assembling witnesses and witness statements to be used in an appropriate forum where the effects of smoke on the nonsmoker is at issue." Crohn had requested the assistance of, among others, William Shinn and Donald Hoel of Shook, Hardy & Bacon, Edwin Jacob and Timothy Finnegan of Jacob, Medinger & Finnegan, and Stanley Temko of Covington & Burling.

87. An October 13, 1980 letter from Thomas Ahrensfield, General Counsel of Philip Morris, to H. Tomas Austern, attorney with Covington & Burling; James Chapin, General Counsel of United States Tobacco; Max Crohn, General Counsel of R.J. Reynolds; Joseph Greer, General Counsel of Liggett; Arnold Henson, General Counsel of American; Ernest Pepples, General Counsel of Brown & Williamson; William Shinn, Shook, Hardy & Bacon; Arthur Stevens, General Counsel of Lorillard; and Stanley Temko, Covington & Burling, described the agenda for the next Committee of Counsel meeting on October 29, 1980. Matters to be discussed included: "1. Report on meeting with UFAC; 2. Model product liability legislation; 3. Litigation; 4. Use of medical and scientific witnesses in legislative hearings; 5. Suggested procedures for handling of sensitive documents by Tobacco Institute; 6. Legal coverage of trade meetings; 7. Lawsuits concerning smoking in work places; 8. Current legal and administrative developments."

88. The September 10, 1981 Committee of Counsel meeting was held at the offices of Chadbourne, Parke, Whiteside & Wolff in New York. In attendance were: Robert Sachs of Brown & Williamson, Samuel Witt of R.J. Reynolds, Frederic Newman of Philip Morris, Arthur

Stevens and James Cherry of Lorillard, William Shinn, Robert Northrip, and Patrick Sirridge of Shook, Hardy & Bacon, Francis Decker of Webster & Sheffield, Edwin Jacob and Timothy Finnegan of Jacob, Medinger & Finnegan, and Janet Brown and Thomas Bezanson of Chadbourne. Issues discussed included CTR Special Projects and the CTR Literature Retrieval Division. See Section I.E. below for discussion of former and Section I.I. below for discussion of latter.

89. Present at the June 10, 1992 meeting were Stevens, General Counsel of Lorillard; Wayne Juchatz, General Counsel of R.J. Reynolds; Lisa Stiles, Jim Chaplin, Richard Verheij, John Rupp, Stan Temko, Keith Teel of Covington & Burling; Debra Christie; Bob Lewis, Vice President of the Tobacco Institute; Kurt Malmgren, Vice President of the Tobacco Institute; Gil Klemann, General Counsel of American; Tom Bezanson, attorney at Chadbourne & Parke; David Kentoff, attorney at Arnold & Porter; Gary Long, attorney at Shook, Hardy & Bacon; John Strauch, attorney at Jones, Day, Reavis & Pogue; Chuck Wall and Steve Parrish of Philip Morris; Dan Donahue, Vice President at R.J. Reynolds, Sam Chilcote, President of the Tobacco Institute; and Don Hoel, attorney at Shook, Hardy & Bacon. Matters discussed included pending litigation, "fire safe" cigarettes, EPA/OSHA developments, ETS case monitoring, Congressional and other federal developments, tort law reform and state activities.

90. The Committee of Counsel was assisted by outside counsel including the law firms of Shook, Hardy & Bacon, Jacob, Medinger & Finnegan, and Covington & Burling.

91. Covington & Burling was counsel for the Tobacco Institute and also the "industry." Ernest Pepples, counsel for Brown & Williamson, testified that Covington & Burling ran the Committee of Counsel meetings and was industry counsel with respect to antitrust

matters.

92. Shook, Hardy & Bacon was counsel for Defendants Tobacco Institute, Philip Morris, Lorillard, R.J. Reynolds, and Brown & Williamson. In a May 18, 1982 memorandum addressed to Robert Sachs, Assistant General Counsel for Brown & Williamson, and Arthur Stevens, Senior Vice President and General Counsel for Lorillard, and copied to Thomas Ahrensfield, Senior Vice President and General Counsel for Philip Morris, Alexander Holtzman, Assistant General Counsel for Philip Morris, Ernest Pepples, General Counsel for Brown & Williamson, and Samuel Witt, General Counsel for R.J. Reynolds, William Shinn of with Shook, Hardy & Bacon, described Shook, Hardy & Bacon's roles with respect to the Tobacco Institute. Shook, Hardy & Bacon examined "most material emanating from the Tobacco Institute which has potential smoking and health overtones" that involved a great deal of give and take and sometimes Shook, Hardy & Bacon "prepar[ed] the final version" of the product. Shook, Hardy & Bacon also assisted the Tobacco Institute in setting strategy, preparing witnesses on smoking and health issues, briefings, reviewing press releases, advertisements, and other public statements, and orchestrating follow-up activities. He remarked: "While we are asked occasionally to do something that we believe T.I. should do itself, we have always reserved the right to decline unless directed by the Committee of Counsel."

93. Shook, Hardy & Bacon's role was further explained in a June 28, 1988 memorandum prepared by Donald Hoel of Shook, Hardy & Bacon to Todd Sollis, Associate General Counsel for Philip Morris. Hoel explained that "[b]ecause SHB represents several of those [cigarette] manufacturers and enjoys a close association with the TI, the firm is able to move freely among industry members, facilitating cooperation and open communication. In this

way, SHB helps eliminate potential difficulties within the tobacco industry that could reduce PM's ability to address effectively smoking and health issues and impair its defense of lawsuits."

94. Jacob, Medinger & Finnegan was counsel for R.J. Reynolds, Brown & Williamson, and CTR. Edwin Jacob attended and gave presentations at Committee of Counsel meetings, he was also involved in the administration of CTR Special Projects. See Section I.E. above.

95. The Tobacco Institute Executive Committee had the "final voice on TI matters" and Tobacco Institute statements and included members of each of the cigarette manufacturers. The Tobacco Institute Executive Committee met frequently to keep abreast of issues of common concern. For example, the Tobacco Institute Executive Committee met on January 12, 1964, where the implications of the 1964 Surgeon General's Report on Smoking and Health was discussed. It was agreed that "It is considered to be of prime importance that the industry maintain a united front and that if one or more companies were to conduct themselves as a matter of self interest, particularly in advertising, obvious vulnerability would be the result."

96. A 1974 Tobacco Institute report titled "Defending Tobacco" stated that the Tobacco Institute Board of Governors' adoption in January 1971 of the Guidelines for Authority and Responsibility of the Institute had greatly improved the overall efficiency of the Tobacco Institute by setting out authority and responsibility of the Tobacco Institute's staff and committees, placing more authority in the Tobacco Institute President, and establishing more frequent meetings of the Executive Committee to establish and review Tobacco Institute policies, programs and objectives. The Guidelines eliminated much undue delay occasioned in the past in obtaining approval and authority from the Tobacco Institute Executive Committee or its Board

members for Tobacco Institute action.

97. In 1978, the Tobacco Institute Executive Committee was comprised of Chairman Ross Millhiser, Vice Chairman of Philip Morris; Clifford Goldsmith, President of Philip Morris; Kinsley R. Dey, Jr., President of Liggett; Robert Seidensticker, Vice President of Liggett; Joseph Edens, President of Brown & Williamson; Charles McCarty, Chairman of Brown & Williamson; William Hobbs, President of R.J. Reynolds; J. Paul Stricht, President of R.J. Reynolds; Curtis Judge, President of Lorillard; Arthur Stevens, Vice President and General Counsel of Lorillard; W. Brooks George, attorney for Larus & Brothers; and Stuart Bloch of General Cigar.

98. The Tobacco Institute Communications Committee reviewed and approved Tobacco Institute advertisements. Membership in 1970 consisted of Wade, Blalock, Bowling, Bresnahan, David Hardy, Provost, Leonard Zahn (public relations counsel to CTR), Saunders and Holtzman of Philip Morris, Ruder (public relations counsel to Philip Morris), William Shinn of Shook, Hardy & Bacon, Stanley Temko of Covington & Burling, Richard Lewis of Brown & Williamson, and Tobacco Institute employees William Kloepfer, Anne Duffin, Horace Kornegay, Earle Clements, Frederick Panzer, Marvin Kastenbaum, Gil Huebner, and Mr. Barr.

99. A 1974 Tobacco Institute report titled "Defending Tobacco" stated that, prior to 1967, much of the communications with member companies was through the Tobacco Institute Committee of Counsel, or by informational memo. One change that greatly facilitated the internal information process was the creation in 1969 of the Communications Committee, made up of representatives of each major company and of the Tobacco Institute's legal counsel, who met frequently to advise on the Tobacco Institute's public relations strategy.

100. Through these Tobacco Institute committees, the Defendants, through their agents

and attorneys, controlled the Tobacco Institute and set policy, including the misleading and fraudulent statements about material matters made by Tobacco Institute. Over time, this structure changed somewhat, but Defendants always maintained control over the Tobacco Institute's activities. Thus, the Tobacco Institute's many committees carried out the objectives of the Enterprise.

(3) Tobacco Institute Public Statements, Ads, Press Releases, and Publications

101. The Tobacco Institute was the leading joint public voice of the Cigarette Company Defendants. To further the Enterprise's goals, the Tobacco Institute created and issued press releases, public statements, advertisements, and publications on behalf of Defendants and the tobacco industry on the following topics, among others: (1) denying the link between smoking and disease; (2) discrediting scientists and public health officials; (3) making the public aware of the scientific efforts of the tobacco industry; (4) denying that cigarette smoking was addictive; and (5) denying that the industry marketed to youths.

(a) Denying the Link Between Smoking and Disease

102. From 1958 through the 1990s, the Tobacco Institute made numerous public statements denying that there was a link between smoking and disease. For example, an October 24, 1958 Tobacco Institute press release reporting on animal research stated that more research is needed to prove a link between smoking and lung cancer.

103. On July 6, 1961, the Tobacco Institute issued a statement to United States newspapers for public distribution titled "Allen Gives Tobacco Institute Position on 'Health

Scares.'" The statement quoted the Tobacco Institute president George Allen's comments on current health concerns regarding cigarette smoking: "[t]he tobacco industry itself is more interested than anyone else in finding out and making public the true facts about tobacco and health" and that "research in recent years has produced findings that weaken rather than support the claim that smoking is a major contributor to lung cancer."

104. On December 27, 1962, the Tobacco Institute issued a press release that stated: "The causes of cancer are not now known to science. Many factors are being studied along with tobacco. The case against tobacco is based largely on statistical association studies, the meanings of which are in dispute."

105. A June 19, 1963 Tobacco Institute press release claimed that since 1954 the Cigarette Company Defendants had supported grant-in-aid research through TIRC and had contributed more than \$6 million in funds towards independent medical and scientific research. The press release claimed that research findings to date regarding underlying causes of cancer and cardiovascular diseases were inconclusive.

106. A July 9, 1963 press release reaffirmed the Tobacco Institute's public position, which was not to accept any claims that smoking may play a part in causation of human disease until further research provided enough facts to link smoking to certain health effects. This statement quoted George Allen, President of the Tobacco Institute: "With the numerous theories, statements, and resolutions that have been presented to the public, there is some danger of losing sight of what ought to be the basic objective of all who are concerned. That is doing the needed research. We believe the answers will be found. And they will be found in the scientific laboratory, not through pronouncements either for or against tobacco."

107. On October 21, 1966, the Tobacco Institute issued a public statement to United States newspapers that stated that the tobacco industry knew "of no valid scientific evidence demonstrating that either 'tar' or nicotine is responsible for any human illness."

108. The literature published by the Tobacco Institute consistently argued that evidence implicating cigarettes and smoking as causes of disease remained hypothetical, limited, and static. An April 23, 1968 pamphlet of questions and answers represented the views of the defendant members of the Enterprise:

Q: Has any important new evidence against cigarettes been reported in recent years?

A: No. Cigarettes today are branded guilty on virtually the same kind of evidence that was considered insufficient only a few years ago.

Q: Is smoking a health hazard?

A: That question is still an open one. . . . At that time, most scientists considered the findings of these studies insufficient to prove a case against smoking. Since then, many other studies have been done. But there is still no proof that cigarette smoking is a cause of lung cancer- or any other disease.

109. The Tobacco Institute's internal documents reveal the Enterprise's true intentions with respect to the Tobacco Institute's press releases and public statements. The Tobacco Institute's 1968 "Tobacco and Health Research Procedural Memo" stated: "The most important type of story is that which casts doubt on the cause and effect theory of disease and smoking . . . the headline should strongly call out the point – Controversy! Contradiction! Other factors! Unknowns!"

110. In 1970, the Tobacco Institute published and distributed to the public a pamphlet entitled "The Cigarette Controversy, Eight Questions and Answers." This pamphlet presented the Cigarette Company Defendants "facts" explaining the "controversy" surrounding scientific

studies of smoking and health, and the need for further scientific research in order to accept claims of causation. This document, like many other industry documents, was drafted with the assistance of industry counsel at Shook, Hardy & Bacon. According to a letter from David Hardy of Shook, Hardy & Bacon, this Tobacco Institute booklet was written to explain to the public the "reasons why representatives of the Cigarette industry contend that the case against cigarettes has not been proven [and that the] Tobacco Institute has felt it desirable to have some readable document to give them which spells out some of the unanswered questions."

111. The Tobacco Institute published a shorter summary of the 1970 "Cigarette Controversy" pamphlet in 1971 entitled "Smoking and Health: An Age-Old Controversy." This leaflet briefly stated the Cigarette Company Defendants' unified views on the questions of causation and the validity of the scientific research conducted to date. A November 9, 1973 Tobacco Institute memorandum described "Smoking and Health: An Age-Old Controversy" as a "good synopsis of the [1970] pamphlet" and a "shorter version of the industry stand on the cigarette controversy" that should "be put to good use."

112. In an effort to deflect attention from smoking as a cause of disease, the Enterprise pointed to other possible causes. On January 1, 1971, in a Tobacco Institute press release, Defendants made statements criticizing public health efforts, suggesting to the public that not enough was being done to investigate incidents of lung cancer in non-smokers. The press release stated that "thousands of lung cancer victims who have never smoked cigarettes [are] being neglected by expensive propagation of myths instead of scientific knowledge."

113. The Enterprise again publicly denied any links between smoking and health in a May 25, 1971 Tobacco Institute press release. This press release stated that "many eminent

scientists" believe that "the question of smoking and health is still very much a question."

114. On November 15, 1971, the Tobacco Institute stated in a press release that smoking is not harmful to pregnant women. They claimed that many doctors believe that "question of smoking and health is still an open one."

115. The reason behind the Tobacco Institute's public statements is explained by a 1972 Tobacco Institute internal document, which stated: "In cigarette controversy, the public – especially those who are present and potential supporters (e.g. tobacco state congressmen and heavy smokers) – must perceive, understand and believe in evidence to sustain their opinions that smoking may not be the causal factor."

116. After the publication of "The Cigarette Controversy," the Tobacco Institute published a series of classified advertisements in various magazines, inviting readers to request copies of the pamphlet. For example, on November 6, 1972, the Tobacco Institute ran an advertisement in The Nation that stated "YOU HAVE A RIGHT TO A FULL DISCUSSION ABOUT smoking and health. The Cigarette question is still a question. Send for free booklet 'The Cigarette Controversy'."

117. On January 14, 1975, the Tobacco Institute released a new announcement of the availability of the booklet "The Cigarette Controversy." This announcement stated that "[i]f smoking does cause disease, why after years of intensive research, has it not been shown how this occurs? And why has no ingredient as found in smoke been identified as the causal factor? These are among the unanswered questions set forth in a new publication of the Tobacco Institute, entitled 'The Cigarette Controversy.' . . ."

118. Distribution of "The Cigarette Controversy" aided the goal of spreading the

Cigarette Company Defendants' statements about smoking and health to the public. While this booklet was published and most often distributed by the Tobacco Institute, the individual tobacco companies also made efforts to circulate this publication to its consumers. For example, on March 26, 1976, R.J. Reynolds wrote a letter in reply to a consumer's concern that cigarettes are a cause of lung cancer. R.J. Reynolds included a copy of "The Cigarette Controversy" in its response, although the customer had not requested it.

119. The Tobacco Institute's public relations strategy was to get the Enterprise's message out to the public that there was no definite link between smoking and health, and that until answers to these questions were found, smokers should not fear that their health was endangered. The tobacco industry's four-point platform was set out in a December 29, 1977 Tobacco Institute press release: "1. The question of smoking and health is still a question requiring scientific resolution. 2. Tobacco smoke does not imperil normal smokers. 3. The tobacco farm program is an essential part of public policy. 4. The freedom of choice of our industry's customers must be preserved."

120. By the late 1970s, environmental tobacco smoke ("ETS") became an increasingly important issue on the tobacco industry's public relations platform. A Tobacco Institute advertisement published in at least 1977 stated: "Some people are saying America needs a lot of new laws restricting smoking. Before you decide, you should know this: Other people's smoke has never been shown to cause disease in nonsmokers." This advertisement quoted Defendant funded scientists, referred to industry-sponsored scientific conferences that had come to such conclusions, and offered its readers a free copy of the Tobacco Institute booklet "Special Report – Smoking and the Public."

121. In 1978, a Tobacco Institute pamphlet stated: "The flat assertion that smoking causes lung cancer and heart disease and that the case is proved is not supported by many of the world's leading scientists."

122. A 1980 Tobacco Institute pamphlet entitled "Two-Way Street" stated: "First of all, it is important to understand that there is no convincing evidence that tobacco smoke causes disease in nonsmokers."

123. In 1982, the Tobacco Institute published a scientific literature review entitled "Cigarette Smoking and Cancer: A Scientific Perspective" which conveyed that scientific research to date had failed to find a causal link between smoking and health. According to a Tobacco Institute inter-office memo, the release of this publication, shortly before the release of the 1982 Department of Health and Human Services report on Smoking and Health, was based on the notion that "it is more effective [for the tobacco industry] to take initiative in situations involving a prospective negative news event." A February 11, 1982 Tobacco Institute press release announcing this industry publication noted that the Tobacco Institute report discussed many additional factors such as "environment, occupational exposure, psychological characteristics, physical and mental stresses, genetics, and smoking and diet [that] have all been described as possible risk factors for cancer."

124. In 1982, the Tobacco Institute launched a national series of advertisements on behalf of the Cigarette Company Defendants that addressed smoking and health issues, ETS, public smoking restrictions, and youth smoking. These ads asked readers to keep an open mind on tobacco issues and "[w]eigh both sides before [they] take sides." Readers were encouraged to request a free copy of the Tobacco Institute's booklet "Answers to the Most Asked Questions

about Cigarettes."

(b) Statements to Discredit the Research and Findings of Independent Scientists and Public Health Officials

125. For decades, the Tobacco Institute issued press releases and made public statements on behalf of its member companies that attempted to discredit non-industry scientists, government public health statements, and scientific findings that linked cigarette smoking to human disease. For example, on November 27, 1959, the Tobacco Institute issued a press release containing statements attacking an article written by United States Surgeon General Leroy Burney on the hazards of cigarette smoking.

126. On March 14, 1963, the Tobacco Institute issued a press release to The New York Times containing a statement by Tobacco Institute President George Allen. In this document, Allen stated that:

Scientific opinions differ widely. Many scientists say that more must be learned before it will be known whether any of the factors now under study, including smoking, has a role in causation of diseases such as lung cancer, and if so, whether that role is direct or indirect, primary or incidental. In the opinion of these scientists, singling out tobacco as a major factor is not warranted by scientific knowledge.

127. The Tobacco Institute issued a press release on April 15, 1963, titled "Comments on Cancer Society Booklet" in response to the American Cancer Society's recently published booklet "Cigarette Smoking and Cancer." In this press release, George Allen stated that "[t]here is a dispute among scientists as to the causes of lung cancer. Many differing opinions exist. . . . The booklet does not purport to contribute new knowledge. It is our belief that the answers to questions about diseases such as lung cancer will come through the research laboratory, not through booklets or campaigns for or against smoking."

128. In February 1970, the Tobacco Institute issued an announcement intended for publication titled "The Tobacco Institute Believes the American Public is Entitled to Complete, Authenticated Information About Cigarette Smoking and Health," with the subtitle "The American Cancer Society Does Not Seem to Agree." This announcement challenged information issued by the American Cancer Society at an earlier press conference concerning a research project titled "The Effects of Cigarette Smoking Upon Dogs."

129. Through a January 1, 1971 Tobacco Institute press release, the Enterprise attacked the public health community's efforts to spend appropriate funds on scientific research, claiming that, instead, much of this money had gone to anti-tobacco propaganda. This press release indicated that Tobacco Institute President Horace Kornegay said that tobacco companies in 1971 would pool more than \$4 million for support of independent scientific research on smoking and health questions, and adding "so long as hundreds of thousands of non-smokers are crippled or die prematurely from cancer, heart disease and respiratory ailments, there is no excuse for continued failure of the voluntary health associations to apply every available dollar to the search for the keys to these scourges."

130. Upon release of the 1972 report of the Surgeon General on smoking and health, Defendants made statements attacking the report's results and questioning the public health community's intent to inform the public of honest scientific truths. A February 16, 1972 Tobacco Institute press release, which quoted J.C.B. Ehringhaus, Jr., Tobacco Institute Vice President, stated that "[t]he 1972 report of the Surgeon General to congress on smoking and health 'insults the scientific community' and that the 'number one health problem is not cigarette smoking, but is the extent to which public health officials may knowingly mislead the American public.'"

131. In 1977, the Tobacco Institute published a pamphlet that stated: "Has the Surgeon General's report established that smoking causes cancer or other diseases? No."

132. A December 1978 Tobacco Institute pamphlet entitled "The Smoking Controversy: A Perspective" furthered the Enterprise's effort to keep the question of whether smoking causes disease unanswered. This pamphlet attacked independent research results further confirming smoking's deleterious effects, and commented that the "wars" against disease that are being "waged by the government and voluntary health agencies" are being taken "beyond the realm of science." This was continued with the false contention that public health and independent research efforts had "degenerated into a war against cigarettes."

133. In 1979, the Tobacco Institute circulated a report entitled "Smoking and Health 1964-1979: The Continuing Controversy." This report, which was released the day before the 1979 Surgeon General's Report, stated that: "The American public would be better served if high government health officials and private interest groups which encourage them abandoned the myth of waging war against diseases and their alleged causes. . . . Indeed, many scientists are becoming concerned that preoccupation with smoking may be both unfounded and dangerous. Unfounded because evidence on many critical points is conflicting. Dangerous because it diverts attention from other suspected hazards."

134. As ETS became more of a public concern, the Enterprise, through the Tobacco Institute, published booklets which questioned to the validity of public health statements regarding the dangers of ETS and attempted to redirect the public's concern to other possible environmental agents. In 1987, the Tobacco Institute published a pamphlet entitled "Smoking Restrictions: The Hidden Threat to Public Health" which stated that "there is no persuasive

evidence that ETS poses any significant risk to the health of non smokers." The text went on to state that "some government health officials are attempting to apply political pressure on the scientific community, and on legislators, to promote a 'smoke-free society' by focusing on speculation rather than fact." In this booklet, Defendants claimed that the public health officials' efforts demonstrate a "clear front to scientific integrity."

(c) Publically Promoting the "Scientific" Efforts of the Tobacco Industry

135. The Enterprise, through the Tobacco Institute's public statements, publicized its stated efforts to play a role in discovering answers to questions about smoking and health. Numerous statements were released to convince the public that the tobacco industry was making efforts to conduct its own research as well as to fund independent scientists.

136. A November 3, 1963 Tobacco Institute press release stated that the Cigarette Company Defendants were on a "crusade" to find answers to the "questions about smoking and health" and that it "should be a crusade neither for or against tobacco. It is a crusade for research."

137. On March 6, 1964, the Tobacco Institute sent a press release announcing the reorganization of TIRC and its new name, CTR. This press release represented that CTR's research policy would be set by doctors and scientists independent of the tobacco industry.

138. On December 29, 1965, the Tobacco Institute stated in a press release that it was Defendants' belief that current research had not established whether smoking causes disease and that the matter is still an "open question." The press release stated: "If there is something in tobacco that is causally related to cancer or any other disease, the tobacco industry wants to find out what it is, and the sooner the better."

139. In December 1970, the Tobacco Institute published as an advertisement entitled "The Question About Smoking and Health is Still a Question," declaring that "[f]rom the beginning, the tobacco industry has believed that the American people deserve objective scientific answers." The statement also represented that "in the interest of absolute objectivity, the tobacco industry has supported totally independent research with completely non-restricted funding" and that "the findings were not secret." Moreover, the statement declared, "After millions of dollars and over 20 years of research: The question about smoking and health is still a question" and further stated that the "tobacco industry stands ready today to make new commitments for additional valid scientific research that offers to shed light on new facets of smoking and health."

140. A January 3, 1971 Tobacco Institute press release quoted Tobacco Institute President Horace Kornegay as saying, "Any organization in a position to apply resources in the search for those keys [to the 'locked door' to the 'statistical path' that links smoking to ill health] – and which fails to do so – will continue to be guilty of cruel neglect of those who it pretends to serve." In this statement, Kornegay told the public that the Cigarette Company Defendants planned to provide more than \$4 million for independent scientific research.

141. In a Tobacco Institute press release on February 1, 1972, Kornegay stated that "[t]he cigarette industry is as vitally concerned or more so than any other group in determining whether cigarette smoking causes human disease . . . and that despite this effort the answers to the critical questions about smoking and health are still unknown."

142. The Tobacco Institute continued to report to the public of the industry's efforts to conduct research, fund independent science, and search for answers to the questions about

smoking and health although, by 1975, every member of the Enterprise, in furtherance of its common objectives, would not admit that smoking could be the cause of some human illness. The Enterprise continued to communicate to the public its purported feeling of responsibility to consumers and its monetary contributions to scientific research. A January 14, 1975 Tobacco Institute press release reported that the Cigarette Company Defendants "have committed some \$50 million to help support researchers who are seeking the truth."

143. In 1982, the Tobacco Institute published a pamphlet in which it wrote: "Since the first questions were raised about smoking as a possible health factor, the tobacco industry has believed that the American people deserve objective, scientific answers. The industry has committed itself to this task."

144. In 1983, the Tobacco Institute published a pamphlet entitled "Tobacco Industry Research on Smoking and Health: A \$111 Million Commitment." This pamphlet stated: "Since the first questions were raised about smoking as a possible health factor, the tobacco industry has believed the American people deserve objective, scientific answers. The industry has committed itself to this task."

(d) Denying that Cigarette Smoking Is Addictive

145. In 1988, the Surgeon General's Report titled "The Health Consequences of Smoking: Nicotine Addiction" concluded that cigarette smoking was addictive. The Enterprise, realizing that this conclusion was a threat to its viability, quickly responded with a series of advertisements, press releases, and public statements challenging and denying the Surgeon General's findings, which reflected the strong medical and scientific consensus.

146. In 1988, the Tobacco Institute issued a press release stating that: "Claims that

cigarettes are addictive contradict common sense. . . . The claim that cigarette smoking causes physical dependence is simply an unproven attempt to find some way to differentiate smoking from other behaviors. . . . The claims that smokers are 'addicts' defy common sense and contradict the fact that people quit smoking every day."

147. Another 1988 press release by the Tobacco Institute claimed that the Surgeon General's declaration that smoking is an addiction was "an escalation of antismoking rhetoric . . . without medical or scientific foundation."

148. In a 1989 interview on ABC's Good Morning America, a Tobacco Institute spokesperson stated: "I can't allow the claim that smoking is addictive to go unchallenged[.]"

149. In a 1990 interview on CNN's "Larry King Live," a Tobacco Institute spokesperson stated: "[A]bout 95 percent of those people have quit cold turkey. They've walked away from cigarettes and they've not gone through formal treatment centers or anything else. It's not like alcoholism or drug abuse. It's not an addiction."

(e) Denying that the Industry Marketed to Children

150. Defendants continually advertised and marketed to children; however, it wanted to convey to the public that the tobacco industry was responsible and did not target kids. The Cigarette Company Defendants used the Tobacco Institute as a means to convey its (false) message that it did not advertise to children.

151. For example, on July 9, 1963, the Tobacco Institute issued a press release stating "the tobacco industry's position that smoking is a custom for adults and that it is not the intent of the industry to promote or encourage smoking among youth" and "[t]he industry wants to make it demonstrably clear that it does not wish to promote or encourage smoking among youth."

152. On April 27, 1964, the Tobacco Institute issued a press release titled "Cigarette Manufacturers Announce Advertising Code." The Cigarette Advertising Code allegedly set "uniform standards for cigarette advertising," including standards related to youth advertising and other marketing activities, and the provision that "cigarette advertising shall not represent that cigarette smoking is essential to social prominence, distinction, success, or sexual attraction."

153. An August 30, 1983 memorandum from a representative of Philip Morris to representatives from the Tobacco Institute, R.J. Reynolds, and Lorillard, enclosed an anti-smoking campaign identified as "the best that has been done on youth smoking [to date]." A handwritten notation on the document states: "This says it well but is not a 'youth program.' It's not addressed to young people but to a nebulous public. It's totally self serving. But great copy!" The advertisement states in bold letters: "We don't think our kids should smoke, either." It goes on to state: "As with many of life's pleasures, smoking, drinking and driving a car require a knowledge of oneself and a sense of moderation that can only come with age. When our children acquire this sense of moderation and this knowledge of themselves – and are, therefore, no longer children – they can make their own decisions. Until then, we'll try to help them learn what every human being has always had to learn. When we confuse the pleasures of growing up with the satisfactions of being grown up, we miss a great deal of both."

154. A Tobacco Institute spokesperson stated on national television on October 20, 1983, "Cigarette manufacturers are not interested in obtaining new business from teenagers. . . . We do everything possible to discourage teenage smoking."

155. In April 1984, the Tobacco Institute initiated a project with the National Association of State Boards of Education ("NASBE") to publish a pamphlet "Helping Youth

Decide" as part of its "Responsible Living" project. An April 12, 1984 memo to the member's of the Tobacco Institute's Executive Committee explained one of the advantages of working with NASBE: "NASBE will provide us with an established, clear link to all levels of government: federal, state and local."

156. On August 15, 1984, Anne Duffin, Vice President of Public Relations for the Tobacco Institute, sent a memo regarding "Federal Relations Division participation in launch of NASBE/TI youth program," which described the intended Capitol Hill visits and mailing of kits to all Congressmen and Senators that would be done with respect to the program.

157. A September 21, 1984 memo from Duffin to Tobacco Institute employee P.R. Pink, and copied to Walker Merryman, Vice President of the Tobacco Institute, regarding "wording on TI youth position" actually deflated the industry's argument that it backed anti-youth smoking campaigns:

Because of litigation, SHB [Shook, Hardy & Bacon] prefers that we not talk about precisely how long it has been an industry policy that youth should not smoke.

We can say 'for many years.' We can use 'for more than two decades' or some such only if in the context that's how long it has been clear that the industry doesn't want kids to smoke, wording Stanford said he had recently cleared.

This sounds like splitting hairs, but I can see the wisdom under present New Jersey circumstances of not further pinpointing exactly when the industry announced it would avoid advertising/promoting cigarettes to youth.

158. In 1990, the Tobacco Institute revised and republished "In the Public Interest Three Decades of Initiatives by a Responsible Cigarette Industry," originally published in 1986. The copy stated under the heading "Our Commitments" as follows: "For the past thirty years – and for the future – this industry has maintained responsible positions in four policy areas of

concern to all Americans, smokers and nonsmokers alike: Youth Smoking, Scientific Research, Truthful Advertising, and Workplace Smoking." The discussion on Youth Smoking alleged that "Cigarette manufacturers have always believed that the decision to smoke or not is a choice to be made by informed adults," and outlined the initiatives it claimed to have taken over the years.

159. On October 11, 1990, the Tobacco Institute issued a press release entitled "Major New Initiatives to Discourage Youth Smoking Announced." This press release contained statements suggesting that Defendants had a "longstanding policy" of discouraging and preventing smoking by youth. It also discussed the "It's The Law" program begun with retailers.

160. A 1991 document stated as follows:

the youth program and its individual parts support the Tobacco Institute's objective of discouraging unfair and counterproductive federal, state, and local restrictions on cigarette advertising by:

. . . .

-- Reinforcing the belief that peer pressure -- not advertising -- is the cause of youth smoking.

Seizing the political center and forcing the antismokers to an extreme

The strategy is fairly simple:

1. Heavily promote industry opposition to youth smoking.
2. Align industry with broader, more sophisticated view of the problem, i.e., parental inability to offset peer pressure.
3. Work with and through credible child welfare professionals and educators to tackle the 'problem.'
4. Bait anti-tobacco forces to criticize industry efforts. Focus media attention on antis' extremism. Anticipate and blunt antis' strongest points.
5. Establish the sense of a growing, well-accepted program by encouraging a proliferation of small, local projects, and appropriate co-ventures with other TI allies. Avoid dependency on any one organization

161. On December 11, 1991, the Tobacco Institute issued a press release containing statements falsely suggesting that the majority of smokers in the United States are of legal age

when they begin smoking and that Defendants have discouraged youth smoking.

D. Tobacco Institute Testing Laboratory

162. In June 1966, the Federal Trade Commission ("FTC") announced that it was establishing a laboratory to measure by machine the tar and nicotine content of cigarette smoke. That same year, the tobacco industry decided to establish its own laboratory, the Tobacco Institute Testing Laboratory ("TITL"), which would be a separate division of the Tobacco Institute. The TITL was established so that Defendants could conduct tests to determine the accuracy and reliability of the FTC laboratory's tests. The TITL was also used by the tobacco industry for its own testing purposes.

163. A meeting was held on September 30, 1996 at which Bates, Research Director of Liggett; Griffith, Director of Research and Development of Brown & Williamson; Harlow, Plant Manager for American; Dr. Senkus, Director of Research for R.J. Reynolds; Cogbill of American; and Resnik, Vice President of Philip Morris, were in attendance to plan the operation of TITL.

164. The Tobacco Institute also worked out arrangements with its members whereby company technicians worked with the FTC laboratory in measuring tar and nicotine and in the procurement of testing machines.

165. TITL operations were supervised by a committee consisting of one scientifically qualified representative from each company participating in the laboratory. TITL initially employed three laboratory technicians and operations were under the day-to-day supervision of Lab Director William Steele.

166. At a February 14-16, 1968 meeting of the Directors of Research of Defendants

Liggett, Brown & Williamson, American, R.J. Reynolds, Lorillard, and Philip Morris, also attended by an attorney from Covington & Burling, it was acknowledged that TITL was a "Mechanism for Mutual Cooperation."

167. At a March 11, 1969 Tobacco Institute news conference, William Kloefer of the Tobacco Institute and Frank Resnik of Philip Morris expressed "regret . . . that given the wide degree of suspicion about our industry's product, there seems to be such a corresponding suspicion about the validity of what we say." Resnik explained the purpose of "standard or monitor cigarette" used by FTC and TITL in their "smoking machine as a means of gauging whether the machine is functioning properly on any given test."

168. The industry clearly used TITL for its own commercial purposes. For example, the industry collectively used TITL in its testing of the chemical Chemosol in the late 1960s/early 1970s.

169. American Chemosol Corporation claimed in documents filed with the application for a Canadian patent and German patent that the benzopyrene in tobacco smoke and the "cancer producing tendencies of cigarette smoke" were reduced when the tobacco was sprayed with Chemosol.

170. Representatives from Defendants American, Brown & Williamson, Liggett, Lorillard, Philip Morris, and R.J. Reynolds, along with Larus & Brother, Stephano Brothers, and United States Tobacco, offered to engage in a testing project with American Chemosol in 1967.

171. It was acknowledged that such offer represented industry cooperation on the issue. For example, at the February 14-16, 1968 meeting of the Research Directors, there was a discussion about the need for a cooperative effort with respect to controlling the composition of

smoke and the need for "an industry-wide consideration of some of the additives and filtering devices . . . as in the case of Chemosol."

172. American Corporation responded to the offer from Defendants American, Brown & Williamson, Liggett, Lorillard, Philip Morris, and R.J. Reynolds, along with Larus and Brother, Stephano Brothers, and United States Tobacco in 1969 by contacting H. Thomas Austern, an attorney from Covington & Burling, who advised the Committee of Counsel on the negotiations and received guidance from them on the Cigarette Company Defendants' position. It was agreed that Hazelton Laboratories would conduct the testing based upon a protocol developed by the Research Directors of each of the nine participants, and that the companies would be billed by the Tobacco Institute.

173. A protocol was developed whereby Hazelton would prepare smoke condensate from two groups of cigarettes furnished by the industry, one group treated with Chemosol and one untreated, and then conduct skin-painting experiments on groups of mice. Hazelton would perform nicotine, moisture, and the amount of benzo(a)pyrene in the condensate and the industry would use TITL to perform control testing of samples of the batches, which it did in 1970.

174. At a September 16, 1969 meeting of the Industrial Technical Committee held at the offices of CTR, there was a presentation about Chemosol at which James Gargus of Hazelton Laboratories was present. The Committee agreed, based upon questions from industry counsel, that "the group preferred to keep the test to just 85 mm. cigarettes to protect against the possibility of one or more lengths appearing to be a 'safer' design" (emphasis added).

175. By February 1971, when the Canadian and German patents and their supporting applications were disclosed, the industry grew concerned because its scientists had concluded,

based upon the description of the treatment, that Chemosol could not produce the claimed results. The industry, however, had undertaken to sponsor the Chemosol tests "without knowing what the treatment involved." The industry received interim reports of the testing from representatives of Hazelton.

176. The industry continued to monitor Chemosol until as late as 1973. Chemosol was discussed at a meeting of the Committee of Counsel on September 6, 1973.

177. TITL was used to verify the accuracy of the FTC's labs results until the FTC decided to close its own laboratory in 1987. John Rupp of Covington & Burling then prepared guidelines regarding the (i) the operation of TITL, and (ii) the use of TITL test results for tar and nicotine contents in cigarette advertising.

178. By the 1990s, there was an agreement with the FTC that each company had to use tar and nicotine and carbon monoxide values obtained by TITL in their advertisements.

179. Pursuant to the 1998 Master Settlement Agreement, although it was agreed that the Tobacco Institute would be dissolved, TITL was permitted to continue in operation. The laboratory, however, was renamed Tobacco Industry Testing Laboratory and incorporated on February 2, 1999. The Tobacco Industry Testing Laboratory continues to do product testing for the industry.

E. Special Research Projects and Witness Development

180. Defendants Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, American, and the Tobacco Institute orchestrated a variety of research projects and witness development projects that they dubbed Special Projects. These projects took numerous forms, including as CTR Special Projects, Lawyers Special Projects (projects paid through

Special Accounts), and special projects conducted through the Tobacco Institute. These projects were all exclusively funded by these Defendants.

181. Special Projects were overseen by the main members of the Committee of Counsel, the General Counsels of each of the six Cigarette Company Defendants – Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American.

182. Special Projects were managed by the Ad Hoc Committee, a group consisting of in-house counsel, litigating lawyers, and other agents such as public relations representatives of Defendants, and organized to do long range policy planning with respect to research and witness development.

183. In January 1967, the Ad Hoc Committee was comprised of: (1) Janet C. Brown, Chadbourne & Parke, counsel to American and CTR; (2) Kevin L. Carroll, White & Case, counsel to Brown & Williamson; (3) Donald J. Cohen, Webster, Sheffield, Fleischmann, Hitchcock & Chrystie, counsel to Liggett; (4) Edward J. Cooke, Jr., Davis, Polk & Wardell, counsel to R.J. Reynolds; (5) Francis Decker, Webster, Sheffield, Fleischmann, Hitchcock & Chrystie, counsel to Liggett; (6) Alexander Holtzman, Conboy, Hewitt, O'Brien & Boardman, counsel to Philip Morris; (7) Edwin J. Jacob, Jacob, Medinger & Finnigan, counsel to CTR, Brown & Williamson, and R.J. Reynolds; and (8) William W. Shinn, Shook, Hardy, Ottman, Mitchell & Bacon, counsel to Philip Morris, Lorillard, and Brown & Williamson.

(1) CTR Special Projects

184. CTR Special Projects were a second category of research projects funded by CTR. Unlike the grant in aid category of research, CTR Special Projects were not vetted by the CTR Scientific Advisory Board, and the process was led by the General Counsels for Philip Morris,

R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American, as well as attorneys at outside law firms including Jacob, Medinger & Finnegan, and, in later years, Shook, Hardy & Bacon.

185. CTR Special Projects involved research including epidemiology, laboratory work, and animal experimentation, but the lawyers who requested and monitored the work were not scientists and did not have scientific backgrounds. The lawyers needed to circumvent the CTR SAB method of funding because the SAB evaluated its project-funding requests in part for scientific legitimacy, while the lawyers had litigation and liability objectives foremost in mind for CTR Special Projects.

186. The genesis of CTR Special Projects was in 1965. In a November 18, 1965 internal Liggett memo regarding CTR, Frederick Haas, Liggett's General Counsel, reported that:

As a result of a conference held by the General Counsel, we broached another subject with Council staff. In view of the present posture of the industry with the Congress, Federal Trade Commission, etc., it was suggested that the organization of the Council be further implemented by creating an Industry Projects Advisory Board, which could feed suggestions for research to the staff. The Industry Projects Advisory Board would consist of General Counsel with the aid and advice of the Ad Hoc Committee and at least, in our instance, Dr. Bates. As projects of particular interest to the industry are devised, these are submitted to the staff of the Council, which would evaluate whether the project would be likely to obtain SAB approval. If, however, such approval were unlikely, or the element of time necessitated prompt action, or in a particular instance if the SAB received the suggestions and declined to go forward with it, the project would be handled independently.

This, of course, means that in addition to the budget proposed by the Council for 1966, there would be additional expenditures for special industry projects. The Ad Hoc Committee has been commissioned to come up with ideas, which will be discussed at a meeting on December 7.

187. Moreover, starting in the mid 1960s, Shook, Hardy & Bacon developed smoking and health literature databases within the firm to help the lawyers pick scientists friendly to the tobacco industry liability positions so that these scientists could receive CTR funding through the CTR Special Projects method.

188. An April 14, 1967 memorandum from Addison Yeaman, Vice President and General Counsel of Brown & Williamson, addressed to Frederick Haas, General Counsel for Liggett; Cyril Hetsko, General Counsel for American; Henry Ramm, General Counsel for R.J. Reynolds; Paul Smith, Associate General Counsel for Philip Morris; and Earle Clements, President of the Tobacco Institute, confirmed that many of CTR's research activities were not independent and did not investigate the link between smoking and disease as publicly claimed by the industry: "We have deliberately isolated SAB from those areas of research which they might consider were of a controversial or adversary nature and I see no reason why that isolation cannot and should not be maintained to the fullest preservation of the scientific integrity and dignity of the SAB, but with the release of funds from the SAB portion of CTR's budget to both research directly related to tobacco and the so-called Special Projects."

189. A November 17, 1978 memo written by Robert Seligman, Vice President of Research and Development of Philip Morris, described a November 15, 1978 meeting at which Ernest Pepples, General Counsel for Brown & Williamson; Mr. Tucker, General Counsel for R.J. Reynolds; Timothy Finnegan, attorney with Jacob, Medinger & Finnegan; William Shinn, attorney with Shook, Hardy & Bacon; Arnold Henson, General Counsel for American; Janet Brown, attorney with Chadbourne & Park and described as retained counsel for CTR; Wallace Hughes, Vice President of Brown & Williamson; Alexander Spears, Vice President of Lorillard;

James Bowling, Senior Vice President of Philip Morris; Robert Seligman, Vice President of Philip Morris Research and Development; and Thomas Osdene, Director of Research for Philip Morris, attended. "[The meeting was] called to help an ad hoc committee, selected by the chief executives of the tobacco industry, do long-range policy planning in regard to smoking and health. On the ad hoc committee are representatives of legal, public relations, and research executives of various companies. Any long-range plans which are developed are to be made known to the individual companies through their chief counsel. The ad hoc committee is to consider policy questions in general and particularly grants, contracts, the fate of CTR, etc." At the meeting, Shinn described the history of CTR and of CTR Special Projects. Seligman also reported that it was Shinn's feeling that "[CTR] special projects' are the best way monies are spent. On these projects, CTR has acted as a 'front'; however there [were] times when CTR has been reluctant to serve in that capacity and in rare instances they have refused to serve in that capacity."

190. In certain instances, special projects were transferred among the different industry scientists that administered them. A September 18, 1981 letter from Francis Decker, an attorney with Webster & Sheffield, to Joseph Greer, Vice President and General Counsel for Defendant Liggett, enclosed his notes from a September 10, 1981 meeting of the Committee of Counsel. His notes described a discussion between Stevens, General Counsel for Defendant Lorillard, and Edwin Jacob, CTR attorney with Jacob, Medinger & Finnegan, regarding the method by which CTR Special Projects became lawyers' Special Projects:

Stevens: "I need to know what the historical reasons were for the difference between lawyers' special projects and CTR special projects."

Jacob: "When we started the CTR Special Projects, the idea was

that the scientific director of CTR would review a project. If he liked it, it was a CTR Special Project. If he did not like it, then it became a lawyers' special project."

Stevens: "He took offense re scientific embarrassment to us, but not to CTR."

Jacob: "With Spielberg, we were afraid of discovery for FTC and Aviado, we wanted to protect it under the lawyers. We did not want it out in the open."

(2) Reporting of CTR Special Projects to the Committee of Counsel

191. Industry lawyers at Jacob, Medinger & Finnegan and Shook, Hardy & Bacon monitored CTR Special Projects and provided reports to various General Counsels of Defendants Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American. For example, on October 11, 1966, David Hardy of Shook, Hardy & Bacon, sent a letter to Frederick Hass of Liggett, Cyril Hetsko of American, Henry Ramm of R.J. Reynolds, Paul Smith of Philip Morris, and Addison Yeaman of Brown & Williamson, transmitting a report providing status, progress, and recommendations on special projects. On October 20, 1966, Hardy sent a letter to the Committee of Counsel updating the report on the status of special projects, which included an update of the CTR Special Projects as provided by CTR Executive Director W.T. Hoyt.

192. On April 21, 1967, Hardy sent a letter to Janet Brown, Kevin Carroll, Donald Cohn, Edward Cooke, Francis Decker, Alexander Holtzman, Edwin Jacob, and William Shinn requesting a status report on all Special Projects. On April 27, 1967, Cooke sent a response to Hardy providing reports on special projects. On May 2, 1967, Holtzman, General Counsel for Philip Morris, provided Hardy with the status of the special projects with which he was associated, including CTR Special Projects, and sent a letter to Hardy on June 12, 1967, providing status on an additional number of CTR Special Projects.

193. On March 17, 1977, Donald Hoel of Shook, Hardy & Bacon sent a letter to the

following General Counsels: Thomas Ahrensfield of Philip Morris, Joseph Greer of Liggett, Cyril Hetsko of American, Ernest Pepples of Brown & Williamson, Henry Roemer of R.J. Reynolds, and Arthur Stevens of Lorillard, and provided observations on a report by the Karolinska Institute in Sweden, which had been supported with a CTR Special Project. The authors intended to publish an article entitled "The Interactions of Smoking, Environment and Heredity and Their Implication For Disease Etiology – A Report of Epidemiological Studies on the Swedish Twin Registry."

(3) Lawyers Made Recommendations as to Which Research Project Should Be Approved

194. Jacob, Medinger & Finnegan and Shook, Hardy & Bacon lawyers made recommendations to the General Counsel as to whether projects should be conducted through CTR Special Projects. For example, on April 19, 1967, Shinn of Shook, Hardy & Bacon, sent a letter to Holtzman, Philip Morris General Counsel, regarding CTR Special Projects, outlining a proposal to support and publicize research advancing the theory of smoking as beneficial to health as a stress reducer, even for "coronary prone" persons; representing that stress (rather than nicotine addiction) explains why smoking clinics fail; and proposing to publicize the "image of smoking as 'right' for many people . . . as a scientifically approved 'diversion' to avoid disease causing stress."

195. On February 5, 1974, Shinn sent a letter to the following General Counsel: Thomas Ahrensfield of Philip Morris, DeBaun Bryant of Brown & Williamson, Frederick Haas of Liggett, Cyril Hetsko of American, Henry Roemer of R.J. Reynolds, and Arthur Stevens of Lorillard, stating that "David Hardy and I strongly recommend approval of the \$50,000 grant for Dr. Carl D. Seltzer's work as a CTR special project" at Harvard University, citing his valuable

work underway and published works relating to smoking and health, which were valuable to the industry.

196. On June 3, 1986, Patrick Sirridge of Shook, Hardy & Bacon sent a letter to the following General Counsel: Alexander Holtzman of Philip Morris, Wayne Juchatz of R.J. Reynolds, Josiah Murray of Liggett, Ernest Pepples of Brown & Williamson, Paul Randour of American, and Arthur Stevens of Lorillard, recommending approval for additional funding of Dr. Henry Rothschild through CTR Special Projects.

197. General Counsel for individual Defendants also made recommendations for CTR Special Projects to Shook, Hardy & Bacon attorneys, who then passed on such recommendation to other General Counsel. For example, on October 3, 1968, Holtzman sent a letter to Hardy proposing that Dr. Richard Hickey, who had previously applied for funding through CTR but was denied, receive Special Project funding. On October 21, 1968, Hardy passed on that recommendation by sending a letter to Frederick Haas of Liggett; Cyril Hetsko of American; Henry Ramm, General Counsel for R.J. Reynolds; Paul Smith, General Counsel for Philip Morris; and Addison Yeaman, General Counsel for Brown & Williamson, recommending approval for Dr. Hickey as a CTR Special Project.

198. CTR personnel also recommended that certain projects be funded as CTR Special Projects. For example, on December 24, 1969, Arthur Furst, CTR consultant, sent a letter to Hardy recommending Special Project funding for Professor Hans J. Eysenck to test the hypothesis of a relationship between the emotional make-up of people and cancer by conducting a pilot study of carcinogenesis in rats bred for difference in neurotic characteristics.

199. On April 15, 1970, Robert Hockett, CTR Associate Scientific Director, sent a note

to Holtzman of Philip Morris, recommending special project funding for a second year of study by Hickey.

(4) Defendants' Approval of Lawyer Recommendations

200. After receiving recommendations, the General Counsels of Defendants Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American would then advise Jacob, Medinger & Finnegan or Shook, Hardy & Bacon whether or not their companies would agree to fund the recommended CTR Special Projects. The following are but a few representative examples.

(a) American Tobacco

201. For example, on February 28, 1975, Cyril Hetsko, Senior Vice President and General Counsel for American, sent a letter to Hoel of Shook, Hardy & Bacon indicating that American was agreeable to participating in the Cederlof-Friberg preparations and publication of a twin studies monograph with the understanding that "when the project has been approved by all, it will be handled as a CTR - Special Project."

202. On October 13, 1986, Paul Randour, Senior Vice President and General Counsel of American, sent a letter to Bernard O'Neill of Shook, Hardy & Bacon indicating that American had agreed to contribute to the CTR Special Project of Drs. Kupper and Janis.

203. On April 27, 1988, Randour sent another letter to O'Neill indicating that American had approved CTR Special Project for Dr. Alvin Feinstein.

(b) Brown & Williamson

204. On February 18, 1977, Ernest Pepples, Vice President and General Counsel of Brown & Williamson, sent a letter to Shinn of Shook, Hardy & Bacon indicating that Brown &

Williamson "will be pleased to join with the other tobacco companies in support of this [CTR special] project" for Dr. Theodore Finley.

205. On January 26, 1982, Pepples sent a letter to Patrick Sirridge of Shook, Hardy & Bacon indicating Brown & Williamson's agreement with his recommendation that "the research proposal from Drs. Hutcheon and Regna be approved as a CTR Special Project."

206. On July 23, 1984, Pepples sent a letter to Chester Wroblewski, attorney with Jacob, Medinger & Finnegan, indicating Brown & Williamson's approval of the "two proposals submitted by Drs. Kupper and Janis as [CTR] special Projects."

(c) Lorillard

207. On August 14, 1984, Arthur Stevens, Senior Vice President and General Counsel of Lorillard, sent a letter to Chester Wroblewski indicating that Lorillard would participate in the funding of the two Kupper/Janis projects through CTR Special Projects.

208. On May 20, 1986, Stevens sent a letter to Sirridge indicating that Lorillard would participate in the funding of a two year extension of the Dr. Jenson CTR Special Project.

209. On September 16, 1986, Stevens sent a letter to O'Neill indicating that Lorillard would in the continued funding of the Kupper/Janis CTR Special Project.

(d) R.J. Reynolds

210. On July 26, 1984, Samuel Witt, Vice President and General Counsel of R.J. Reynolds, sent a letter to Wroblewski confirming R.J. Reynolds's approval of joint funding for Drs. Kupper and Janis.

211. On August 23, 1985, Witt sent a letter to Sirridge accepting R.J. Reynolds's share of funding for Dr. Gutstein "as a CTR Special Project."

212. On June 5, 1986, Wayne Juchatz, Vice President and General Counsel of R.J. Reynolds, sent a letter to Sirridge confirming that R.J. Reynolds would share funding for Dr. Jenson's CTR Special Project.

(e) Liggett

213. On May 28, 1970, Shinn of Shook, Hardy & Bacon sent a letter to Alexander Holtzman, Assistant General Counsel for Philip Morris, advising that he now had approval from Philip Morris, R.J. Reynolds, and Liggett for CTR Special Project funding for Dr. Richard Hickey.

214. On February 28, 1974, Frederick Hass, General Counsel for Liggett, sent a letter to Shinn advising him of Liggett's agreement to fund Dr. Carl Seltzer.

(f) Philip Morris

215. On February 21, 1979, Holtzman sent a letter to Hoel of Shook, Hardy & Bacon confirming that Philip Morris would continue funding Dr. Richard Hickey's jointly sponsored research.

216. On June 28, 1979, Holtzman sent a letter to Jacob of Jacob & Medinger indicating that Philip Morris would support approval of Hans Eysenck's request for additional funding.

217. On August 11, 1983, Helen Frustace, Secretary for Holtzman, sent a letter to Sirridge of Shook, Hardy & Bacon indicating that Philip Morris approved funding for Dr. Hutcheon.

(g) Philip Morris Companies

218. On March 13, 1986, Philip Morris Companies sent a letter through the United

States mails from Philip Morris Companies employee Helen Frustace to Hoel of Shook, Hardy & Bacon indicating approval of the request to support Dr. Theodore Sterling's research project "provided it is also approved by four other companies."

219. On May 9, 1988, Philip Morris Companies sent a letter through the United States mails from Frustace addressed to O'Neill of Shook, Hardy & Bacon indicating approval of the request of Dr. Rodger L. Bick for a one-year extension on funding for his CTR Special Project.

220. On May 16, 1988, Philip Morris Companies sent a letter through the United States mails from employee Frustace addressed to Hoel indicating Philip Morris Companies' agreement to renew Dr. Carl Seltzer's CTR Special Project.

(5) Lawyers' Administration of CTR Special Projects

221. After approval by the General Counsels of Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American, CTR Special Projects were sent to the CTR Scientific Director for "review." An employee of CTR testified, however, that she did not recall any projects approved by the General Counsels which were not also approved by the Scientific Director.

222. Once approved by the Scientific Director, Jacob, Medinger & Finnegan or Shook, Hardy & Bacon would communicate to CTR how CTR Special Projects were to be funded. CTR would then assign each Special Project a number and the CTR staff would administer and distribute the funds for the CTR Special Project to the recipient or his or her affiliated research institution from a separate bank account solely for CTR Special Projects. For example, on June 27, 1968, Jacob of Jacob, Medinger & Finnegan sent a letter to William Hoyt, Executive Director of CTR, with respect to funding for Dr. A. Clifford Barger which had been approved for CTR

Special Project funding.

223. CTR Special Projects were not part of CTR's general fund budget; CTR's members provided the funding for CTR Special Projects in separate transactions. Each member company of CTR – Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American – could decide whether or not to contribute to a particular project. The division of costs, however, were usually based upon the companies' respective market shares.

224. From 1966 to 1990, Defendants contributed the following amounts to CTR Special Projects: American contributed approximately \$2,049,354; Brown & Williamson contributed approximately \$2,571,354; Lorillard contributed approximately \$1,638,490; Philip Morris contributed approximately \$5,837,923; and R.J. Reynolds contributed approximately \$6,029,255. From 1966 to 1975, Liggett contributed approximately \$143,830. The combined total funding to CTR Special Projects exceeded \$18 million. See Appendix Table C.

225. CTR Special Project recipients were permitted to publish the results of their research; however, they were instructed to use an acknowledgment line – in publications resulting from CTR funding – different from the acknowledgment line used by those researchers receiving grants-in-aid through CTR's SAB. The different acknowledgment line did not, however, disclose that the Special Project research was undertaken at the specific request of the industry for its own purposes.

226. CTR did not include information about CTR Special Project research in its Annual Reports, which were widely distributed to medical editors at newspapers, medical editors for television programs, deans of colleges and universities in the United States, libraries at colleges and universities, college and university grant offices, the CTR board of directors,

members of the CTR Scientific Advisory Board, the CTR grantees, CTR Class A and B members, and the Tobacco Institute, and contained information about current and terminated grants-in-aid, grantees and their institutions. See Section I.B. above.

227. CTR Special Project funding ended sometime around 1990; thereafter, Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American continued to jointly fund self-serving research projects.

(6) Ad Hoc Committee Special Projects

228. In addition to CTR Special Projects, Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American also conducted special research projects under the guidance of the Ad Hoc Committee. As discussed in Section I.E., the Ad Hoc Committee was made up of a group of retained litigation counsel and other industry agents appointed to coordinate tobacco industry activity with respect to research.

229. An April 12, 1966 document entitled "The 'Mission' of the President of The Tobacco Institute," discusses the Ad Hoc Committee stating that "[c]omposed of lawyers representing each of the six major cigarette manufacturers [Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American] and was set up originally to assure efficient handling of medical evidence, and to provide witnesses in health litigation. More recently Ad Hoc has been charged with preparing a compendium of needed research, both 'practical' and 'basic' – projects are with CTR Special Projects or Ad Hoc."

230. Ad Hoc Committee Special Project funding was paid from Lawyer's Special Accounts, which were initially maintained by Edwin Jacob's law firm and then transferred to Shook, Hardy & Bacon in 1986. Shook, Hardy & Bacon advised that it anticipated higher

funding requests for "certain witness development expenses incurred by national litigation counsel."

231. From 1969 through at least 1989, the contributors to Special Account No. 4, which was used for lawyers special project funding, consultancy fees, and witness expenses, included American, Philip Morris, R.J. Reynolds, Brown & Williamson, Liggett, and Lorillard.

232. A January 15, 1975 memo from Frederick Haas, Liggett General Counsel, to Arthur Sloat, President of Liggett, describes how Defendants used Special Account No. 3 and Special Account No. 4: "Account #3 is the central file available to company and litigating counsel. . . . It is separated from Account #4 because we have considered it to be lawyers' work product, and, therefore, not subject to subpoena. Account #4 is utilized to obtain the services of doctors and scientists who could be available for Congressional hearings, litigation, etc." He further stated: "I and other lawyers who have for several decades been close to the litigation aspects of smoking and health have consistently found that the work done from the funds generated from the above accounts have been extremely important in defending lung cancer and related cases."

233. A December 9, 1977 document prepared by Max Crohn, Assistant General Counsel for R.J. Reynolds, further described Special Account No. 4: "Special Account No. 4 has been used to pay expenses and fees connected with expert consultancies and statement preparation."

234. A document entitled "Special Account No. 4 - funding of Crohn Subcommittee Expenses and General Review" indicated that during a "General Counsel meeting" on January 4, 1978, it was agreed that "Special Account No. 4 could be used for paying fees and expenses of

expert witnesses willing to prepare statements or consult."

235. A February 9, 1978 memorandum from Shinn of Shook, Hardy & Bacon to Thomas Ahrensfield, General Counsel for Philip Morris; Crohn, Assistant General Counsel for R.J. Reynolds; Joseph Greer, Vice President and General Counsel for Liggett; Arnold Henson, General Counsel for American; Pepples, Vice President and General Counsel for Brown & Williamson; and Stevens, General Counsel for Lorillard, stated in part: "Some of you have asked for additional information concerning funding through Special Account No. 4. This account is administered by Jacob & Medinger and Ed Jacob and I have reviewed the enclosed report. I also enclose a memorandum with regard to funding of projects and would appreciate your advice if you find this to be incorrect in any way. There is probably no need for you to retain those notes once you have satisfied yourself of the current situation."

236. Another 1978 document describes the present and future commitments of Special Account No. 4 funds and the procedure for the approval of emergency matters. The list of industry witnesses included: Drs. Aviado, Brown, Eysneck, Spielberg, Hine, Ridgon, Seltzer, Rao, Booker, E. Fisher, Valentin, Heimstra, Dunlap, Farris, F. Fisher, Hickey, Moser, Okun, Sterling, Weil, Jones, Bick, Soloff, Kuper, Harvard Medical School (Dr. Huber), Stanford Research Institute, Franklin Institute, and the Industry Research Liaison Committee. It was noted that the projects for Drs. Weil and Jones in New Orleans and Dr. Bick in Los Angeles "may be suitable as a CTR Special Project."

237. On September 10, 1981, a report was prepared on "Meeting of Counsel and Ad Hoc Committee Members" which discussed special projects and the Literature Retrieval Division. In it, Edwin Jacob was cited next to the comments, "These 'special projects' are

litigation and hearing oriented," and "Difference between C.T.R. and Special Four (lawyers' projects). Director of C.T.R. reviews special projects – if project was problem for C.T.R., use Special Four. Also, if there are work product claims, need the lawyers' protection . . . done through Special Four because of possibility that C.T.R. would be subpoenaed." Stevens of Lorillard was cited next to the comments, "Concerned that science has become diluted and secondary to lawyers' interests."

238. A January 10, 1983 chart demonstrates that Defendants jointly funded both consultancies (listed were Domingo Aviado, Theodore Blau, Walter Booker, Marc Micossi, Ragner Rylander, Carl Seltzer, and Murray Senkus) and research projects (listed were Battelle Columbus Laboratories, Melvin First, Arthur Furst, Nancy Mello and Jack Mendelson, L.G.S. Rao, and Charles Spielberger) through Special Account No. 4. There was also a Special Account No. 5 (listed were Richard Brotman and Alfred Freedman), as well as "Other Special Projects" (listed were Richard Gorlin and Lloyd Klein through the Heart Research Foundation in New York City). This chart was on sent on January 11, 1983 by Sirridge of Shook, Hardy & Bacon to Greer, General Counsel for Liggett; Arnold Henson, General Counsel for American; Holtzman, General Counsel for Philip Morris; Pepples, General Counsel for Brown & Williamson; Stevens, General Counsel for Lorillard; and Samuel Witt, General Counsel for R.J. Reynolds.

239. General Counsel from Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American and lawyers from Jacob, Medinger & Finnegan and Shook, Hardy & Bacon made recommendations with respect the funding of these projects. For example, on December 12, 1966, Holtzman, Assistant General Counsel of Philip Morris, sent a letter to Paul Smith, General Counsel of Philip Morris, on possible Ad Hoc Committee funding for Dr. Alvan

L. Baruch and Dr. Maurice Segal to write a paper to submit for publication on the information tending to show that cigarette smoking was not a cause of either chronic bronchitis or emphysema.

240. On February 9, 1978, Shinn of Shook, Hardy & Bacon sent a letter to Ahrensfeld, General Counsel of Philip Morris; Crohn, General Counsel of R.J. Reynolds; Greer, General Counsel of Liggett; Henson, General Counsel of American; Pepples, General Counsel of Brown & Williamson; and Arthur Stevens, General Counsel of Lorillard, recommending the approval of funding for Hans Eysenck through Special Account No. 4.

241. On February 12, 1982, Pepples sent a letter to Sirridge of Shook, Hardy & Bacon, recommending the renewal of an annual grant to Dr. Furst be paid from Special Account No. 4.

242. General Counsel from Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American advised counsel whether or not their companies would contribute to the Special Account No. 4 project as the following representative examples confirm.

(a) American Tobacco

243. A letter from Janet Brown, attorney with Chadbourne, Parke, Whiteside & Wolff, counsel for American, to Henson, Senior Vice President and General Counsel for Defendant American, dated August 11, 1981, confirmed American's participation in the joint funding of Mancuso, Evans, and Spielberg through Special Account No. 4.

(b) Brown & Williamson

244. A letter dated September 5, 1979 from Pepples to Hardy of Shook, Hardy & Bacon, confirmed that "Brown & Williamson agrees to the use of Special Account No. 4 for funding Ms. Bowers."

(c) Lorillard

245. A June 12, 1978 letter from Stevens to Edwin Jacob of Jacob & Medinger, confirmed that Lorillard would participate in the Joint renewed funding for Hans Eysenck through Special Account No. 4.

(d) R.J. Reynolds

246. A letter dated March 31, 1982 from Samuel Witt, Vice President and General Counsel for R.J. Reynolds, to Sirridge of Shook, Hardy & Bacon, gave R.J. Reynolds's authority for funding Dr. Furst's 1982 grant. The letter stated, "We agree that this should be paid from special fund four."

(e) Liggett

247. A letter dated June 27, 1984, from Josiah Murray, Vice President and General Counsel for Liggett, to Jacob enclosed Liggett's quarterly contribution to Special Account No. 4.

(f) Philip Morris

248. A letter dated August 15, 1978, from Holtzman of Philip Morris to Hoel informed him that Philip Morris would participate in the joint payment requested to Dr. Charles Hines, which would be made from Special Account No. 4.

(7) Institutional Grants

249. Lawyers' Special Accounts were also used to pay for the institutional grants funded by Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American. Institutional grants were another mechanism used by Defendants to promote self-serving research. For example, a November 17, 1978 memo prepared by Robert Seligman, Vice President of Research and Development of Philip Morris, detailed a November 15, 1978 meeting

that was called to assist the Ad Hoc Committee and discussed institutional grants. Seligman reported what Shinn had stated at the meeting: "CTR began to lose their luster in the mid-60's and the tobacco industry looked around for more beneficial ways to spend their research dollars on smoking and health. It was at this time that special projects were instituted at Washington University, Harvard University, and UCLA. . . [T]he industry received a major public relation 'plus' when monies were given to Harvard Medical School."

250. The institutional grants at Washington University, Harvard, and UCLA were also discussed at an August 8, 1974 meeting of the Industry's Research Support Planning Committee (also known as the Research Liaison Committee) attended by Cyril Hetsko, General Counsel for American; Curtis Judge, President of Lorillard; William Bates, Assistant Director of Research for Liggett; Clifford Goldsmith of Philip Morris; Henry Roemer, General Counsel for R.J. Reynolds; William Kloepfer, Senior Vice President of the Tobacco Institute; Horace Kornegay, President of the Tobacco Institute; William Gardner, CTR's Scientific Director; Leonard Zahn, public relations consultant for CTR; and David Hardy, attorney with Shook, Hardy & Bacon. The minutes state "The breadth of coverage of these grants exceeds the areas covered by the CTR-SAB in at least two instances. The duration of support and the flexibility of budgeting and of program are greater than with the CTR program. The staff of CTR has offered to exchange information with two of the institutional grants and has done so with one through several contacts. This is basically to avoid unnecessary or avoidable overlap and determine possible gaps."

251. Defendants began funding Drs. Lauren Ackerman and Paul Lacy at Washington University in 1971 with an initial \$2,000,000 five-year grant. Contributors included Brown &

Williamson, Liggett, Lorillard, Philip Morris, R.J. Reynolds, and United States Tobacco. It was recognized that Dr. Lacy's "letter to Senator Morse commending the tobacco industry for its support of basic cancer research at Washington University" was beneficial to the industry.

(8) Defendants Would Often Fund the Same Scientist Through Different Sources

252. Defendants would often fund the same scientist through a variety of different mechanisms. For example, on September 4, 1986, Sirridge of Shook, Hardy & Bacon sent a letter to the following General Counsels: Holtzman of Philip Morris, Wayne Juchatz of R.J. Reynolds, Josiah Murray of Liggett, Ernest Pepples of Brown & Williamson, Paul Randour of R.J. Reynolds, and Arthur Stevens of Lorillard, recommending that Dr. Richard Hickey receive continued funding and "because Dr. Richard J. Hickey no longer has an official university position, we believe it is an appropriate time for his CTR Special Project should end. However, Dr. Richard J. Hickey, for one year, should be paid \$12,000. The payment is arranged as a consultancy. The consultancy would be paid from Shook, Hardy & Bacon Special Account."

253. Another example is the multiple source funding for Professor Hans Eysenck from the University of London. Eysenck received CTR Special Project funding after initially applying – and being turned down – for a CTR SAB grant in 1969. Eysenck continued to receive CTR Special Project funding for a number of projects through 1986. Eysenck also received CTR SAB grant funding from 1973 through 1976.

254. Jacob also recommended to Ahrensfield of Philip Morris, Crohn of R.J. Reynolds, Greer of Liggett, Henson of American, Pepples of Brown & Williamson, and Stevens of Lorillard that Eysenck receive funding through Special Account No. 4 in 1978 and 1979.

(9) Defendants Continued to Fund Special Projects After They Stopped Using CTR

255. Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American continued to fund Special Projects once they stopped using CTR for Special Project funding in the early 1990s.

256. In March 1992, Bernard O'Neill of Shook, Hardy & Bacon sent a letter to Juchartz of R.J. Reynolds, Pepples of Brown & Williamson, Randour of American, Stevens of Lorillard, and Wall of Philip Morris, and copied to Steven Parrish of Philip Morris, recommending extension of joint industry funding of Theodor Sterling, longtime CTR Special Projects grantee, for Sterling's work on "analyzing the methodical weaknesses in the epidemiological data in the area of smoking and health" and "addressed issues relating to indoor air quality and ETS." According to O'Neill, Sterling's work "provide a much needed perspective on the possible meanings of these scientific reports" on smoking and health issues.

257. Previously, on March 2, 1990, Stevens sent a letter to Sirridge of Shook, Hardy & Bacon, enclosing a check for \$46,461, which represented Lorillard's share of joint funding for Sterling. He noted "that this is no longer a CTR project, but is now being funded directly by the Companies and administered as a Special Research Project through your firm." On March 19, 1990, Paul Randour of American also sent a letter to Sirridge indicating approval of the joint funding of Sterling. On July 23, 1990, Pepples sent a letter to Sirridge enclosing a check for \$65,579 which represented Brown & Williamson's share of funding for Sterling.

258. On May 18, 1992, Philip Morris Companies sent a letter through the United States mails from Charles R. Wall, its Vice President and Associate General Counsel for Philip Morris Companies, to O'Neill of Shook, Hardy & Bacon which was accompanied by a check

representing Philip Morris Companies' contribution to Sterling's research efforts.

(10) Special Projects at the Tobacco Institute

259. Philip Morris, R.J. Reynolds, Lorillard, Liggett, and Brown & Williamson also collectively conducted "Special Projects" through the Tobacco Institute. The term "Special Projects" appeared in Tobacco Institute documents as early as 1962, which were budgeted through its public relations firm Hill & Knowlton. In 1962, Special Projects were related to the following topics: the British Royal College of Physicians report, the Surgeon General's decision to appoint a special committee, the CBS Reports program, and the development of advertising message proposals.

260. In 1963, Tobacco Institute Special Projects "stemmed from activities related to the Surgeon General's Special Committee, the NBC proposed program, renewed efforts to develop special paid messages from the industry, and completion of a filmed interview with Doctors Little and Hockett."

261. "[T]he most likely area of requirements for 1964 [Tobacco Institute Special Projects] relates to the aftermath of the report of the Surgeon General's Committee and perhaps the 'Second Phase' study. . . . All staff, as well as special consultants" are used with Special Projects. (emphasis added). Throughout the history of the Tobacco Institute, special consultants were consistently paid through Special Projects and Special Accounts.

262. According to a document dated January 10, 1968, the Tobacco Institute approved, as a Special Project, a pilot study by its public relations firm Tiderock to determine whether the United States Public Health Services smoking and disease survey was refutable.

263. On February 6, 1969, General Counsels of Philip Morris, R.J. Reynolds, Brown &

Williamson, Lorillard, and Liggett gave approval, as a Tobacco Institute Special Project, for the running of a copy of Dr. Clarence Cook Little's (CTR's Scientific Director) press release of February 3, 1969 with a headline declaring "How Much is Known about Smoking and Health." The advertisement was run in major newspapers and medical journals across the country. The cost of the project was approximately \$68,000 and had not been previously budgeted. Stanley Temko, an attorney with Covington & Burling, was asked about the procedure for billing. He advised that the proposed amendment to the budget could be subject to informal submission to the Executive Committee and that Earle Clements, President of the Tobacco Institute, wanted information prior to the General Counsel meeting on March 3, 1969.

(11) Witness Development

264. One of the main purposes of the lawyer-directed and orchestrated research was the procurement and development of witnesses favorable to Defendants for testimony before Congress, other regulatory bodies, and for support of industry public statements.

265. On December 17, 1965 at a meeting of the Committee of Six, representatives of at least CTR, Brown & Williamson, and R.J. Reynolds, and outside counsel met to discuss CTR and Ad Hoc projects in relation to the need for industry witness development.

266. An April 12, 1966 R.J. Reynolds document describing the mission of the Tobacco Institute discussed Defendants' goals including witness development in upcoming health litigations. This document mentions that the authorization and purpose of CTR Special Projects and Ad Hoc Committee lawyer projects was to assure efficient handling of medical evidence and to provide the industry with witnesses for health litigation.

267. In a January 12, 1967 letter to the Ad Hoc Committee, David Hardy of Shook,

Hardy & Bacon requested evaluations of potential industry witnesses. In the same letter, Hardy asked Ad Hoc Committee members to analyze the value of various CTR and Ad Hoc projects in an effort to get practical use out of them in time for expected Congressional hearings.

268. Hardy's involvement in Defendants' witness development to perpetuate the Defendants' "open question" position was further supported by a letter to Hardy on February 8, 1967 from Donald Cohen and Francis Decker, attorneys with Webster, Sheffield, Fleishman, Hitchcock & Chrystie. This letter responded to Hardy's January 12th request for comments and evaluations of potential industry witnesses. It addressed many areas of possible testimony in great detail and provided names of doctors and scientists, many of whom were CTR Special Projects recipients and funded by various Defendants in later years. Cohen and Decker stated that Defendant witnesses "should describe the unexplained paradoxes in the cigarette smoke theory of disease causation. [They] should present the idea that the statistics are as consistent, if not more so, with the constitutional theory as with the cigarette smoking theory." Cohen and Decker also recommended that doctors and scientists who had received CTR grants-in-aid and special project funding be used as potential witnesses.

269. In response to Hardy's January 12, 1967 letter, Shinn of Shook, Hardy & Bacon drafted a letter on February 2, 1967 which was copied to members of the Ad Hoc Committee regarding potential witnesses for the tobacco industry in upcoming congressional hearings.

270. A February 27, 1967 Ad Hoc Committee document indicated that each member of the Ad Hoc Committee was assigned to specific scientific witnesses. This document listed proposed witness names, the individual who suggested that particular witness, corresponding assignments for the tobacco industry, and the field in which that witness could provide

testimony.

271. Hardy continued to round up possible witnesses for future litigation throughout the 1960s. On March 31, 1967, Robert Hockett, on behalf of CTR, sent a memo to Hardy describing Adolphe D. Jonas, a psychiatrist who had worked on the psychology of smoking. In this memo, Hockett mentioned the possibility of Jonas as a potential industry witness.

272. A June 2, 1967 document lists potential industry witnesses. This list included scientists, doctors, and researchers in a wide range of fields with a brief biographical summary of their work and a characterization of their stance towards the industry. The lists also included whether any of these potential witnesses have an affiliation with CTR and handwritten notes about any prior relationship these individuals have with industry counsel.

273. Scientists' work was often funded by CTR solely because of the scientist's willingness to act as a witness in litigation or congressional hearings on Defendants' behalf. On October 3, 1968, in an attempt to funnel names to Hardy as potential witnesses before awarding scientists industry funding, Alexander Holtzman wrote a letter proposing special project funding for Richard Hickey. Hickey's application to CTR had previously been turned down, but Holtzman stated that "Dr. Richard J. Hickey is willing to prepare a statement for Congress provided that he is put in a position to complete the analysis of data which he has in-hand and he would, in my opinion, make an excellent witness."

274. An industry document that described the minutes of a General Counsel meeting at the offices of Philip Morris on January 4, 1978 where representatives from Brown & Williamson, Liggett, R.J. Reynolds, the Tobacco Institute, and Philip Morris were present, shows the development of Special Account No. 4. The industry procedure for Special Account No. 4 was

to use this money to fund researchers and scientists and to pay fees to consultants who could offer expert knowledge to Defendants and act as witness on their behalf. Recipients of such funding were sought out by Defendants' attorneys based on how helpful they would be in future litigation and congressional hearings. Funds were allocated accordingly. Discussions and details of the lawyers' special projects were to be kept confidential. In this document, attendees of this meeting were advised to not discuss the details of Special Account No. 4 in writing, and instead questions on the matter would require a phone call. No response to a letter with a given date was assumed to mean that "the matter is agreeable."

275. In a February 9, 1978 letter to Thomas F. Ahrensfield, General Counsel for Philip Morris; Max H. Crohn, Jr., General Counsel for R.J. Reynolds; Joseph Greer, General Counsel for Liggett; Arnold Henson, attorney with Chadbourne & Park; Ernest Pepples, General Counsel for Brown & Williamson; and Arthur J. Stevens, General Counsel for Lorillard, William Shinn of Shook, Hardy & Bacon wrote of the "need for special areas of research with due regard for the politics of science and developing witnesses." In this document, Shinn recommended approval for Hans Eysneck funding through Special Account No. 4 and the Franklin Institute request through a CTR special project. Once again, recipients of this letter were reminded to not retain notes on matters of witness development.

276. By at least the late 1970s, the Tobacco Institute and its agents became ringleaders in Defendants' efforts to develop a group of witnesses for future litigations and hearings. An August 30, 1978 letter from Pepples to British-American Tobacco Company, Ltd., discussed the request of Horace Kornegay, President of the Tobacco Institute, that the Committee of Counsel, which was comprised of the General Counsel from R.J. Reynolds, Philip Morris, Brown &

Williamson, American Brands, Lorillard, and Liggett, be involved in selecting and providing scientific witnesses and documentary testimony for use in hearings before Congress and elsewhere.

277. On September 7, 1978, the Subcommittee on Tobacco of the House Agriculture Committee, chaired by Walker Jones, held a hearing on smoking in public places. There were nine witnesses present to testify at this hearing, eight of which were paid by R.J. Reynolds, Philip Morris, Lorillard, Liggett, Brown & Williamson, and American through Special Account No 4. The remaining witness was a recipient of CTR Special Project No. 95 which was a feasibility study recommended by attorney Edwin Jacob. All of these witnesses testified that there was no good evidence that smoke was harmful to those people who do not smoke. A November 1978 R.J. Reynolds document described the Jones hearing as "a structured hearing with only one side presented."

278. Despite Defendants' assertions that CTR was an organization that funded independent research for the purpose of finding answers to smoking and health questions, a November 17, 1978 CTR memorandum represented CTR's role as something quite different. This memorandum memorialized statements made by Shook, Hardy & Bacon partner William Shinn admitting that various Defendants and others continued to use the CTR for its public relations value and its value in defense of litigation legislation and regulation, as well as for its overt value as a source and conduit for disinformation:

As a means of introduction, William W Shinn described the history, particularly in relation to the CTR. The CTR began as an organization called TIRC. It was set up as an industry 'shield' in 1954. That was the year statistical accusations relating smoking to diseases began; and the Wynder/Graham reports were issued. The CTR has helped our legal counsel by giving advice and

technical information, which was needed at court trials. The CTR has provided spokesmen for the industry at Congressional hearings. The monies spent on the CTR provides a base for introduction of witnesses.

279. Despite statements assuring the public that CTR and the Tobacco Institute were set up and acted as separate organizations for different industry purposes, a 1983 letter from Ernest Pepples of Brown & Williamson to Jim Bowling of Philip Morris and Dr. Alexander Spears of Lorillard attached "a paper proposing recommendations which we might make to the Executive Committee." The attached paper titled "Industry Research Support – Recommendations" listed, among others, as considerations for upcoming scientific funding:

Be prepared to increase scientific funding of special projects to resolve scientific problems and develop witnesses.
Maintain company cooperation– philosophies about research may differ at times, but goals should be the same.
Improve cooperation between industry mechanisms such as CTR and TI.

280. In 1984, the Tobacco Institute published "The Cigarette Controversy: Why more research is needed" as the formal statement of its member companies' position on the primary smoking issue. The publication included testimony by a number of Defendant-funded scientists, many of whom were recipients of Special Account No. 4. This publication was presented to the United States congressional committees.

281. In a February 2, 1984 memo to Alexander Holtzman, General Counsel for Philip Morris; Ernest Pepples, General Counsel for Brown & Williamson; Josiah Murray, General Counsel for Liggett; Samuel Witt, General Counsel for R.J. Reynolds; and Arthur Stevens, General Counsel for Lorillard, discussed the intent of the Ad Hoc Committee to "propose a witness development plan" to assist the litigious and regulatory efforts of the member companies.

282. A letter from Patrick Sirridge, Shook, Hardy & Bacon, of April 7, 1986 to

Alexander Holtzman, General Counsel for Philip Morris; Wayne W. Juchatz, General Counsel for R.J. Reynolds; Josiah J. Murray, III, General Counsel for Liggett; Ernest Pepples, General Counsel for Brown & Williamson; Paul A. Randour, General Counsel for American; and Arthur J. Stevens, General Counsel for Lorillard, informed the CTR board members that Shook, Hardy & Bacon would take over both the administration of Special Account No 4 from Jacob, Medinger & Finnegan and the submission of research proposals for CTR special projects. According to this letter, Shook, Hardy & Bacon anticipated higher funding requests for "certain witness development expenses incurred by national litigation counsel."

283. Once ETS concerns came to the forefront of smoking and health issues, Defendants concentrated their efforts on developing ways in which to prove that ETS was not a true health concern. Defendants' attorneys began to devise plans to create a group of scientific witnesses to offer testimony on behalf of the industry on this topic. For example, on June 26, 1987, Philip Morris, along with attorney John Rupp of Covington & Burling, participated in a meeting discussing a project referred to as "Operation Downunder." At this meeting, participants discussed how to proceed on ETS issues. They identified strategies of hurting politicians who voted against cigarette companies' interests, getting the Center for Indoor Air Research ("CIAR") off the ground to be the industry's ETS research funding organization (see Section I.F. below), and developing scientific witness for pro tobacco views on ETS.

284. In a summary prepared by BATCo scientist Sharon Boyse on a "special meeting of the UK Industry on Environmental Tobacco Smoke" on February 17, 1988, at which representatives from Philip Morris and its counsel, Covington & Burling, were present, Boyse stated that "[i]t must be appreciated that Philip Morris [is] putting vast amounts of funding into

[ETS] projects " and is "attempting to coordinate and pay so many scientist on an international basis to keep the ETS controversy alive. It is generally felt that this kind of scientific activity is already giving them a marketing and public affairs advantage." This ETS scientific witness development effort was also referred to as the ETS Consultant Program or the White Coat effort.

285. Defendants continued to use ETS expert witnesses despite internal opinions that some of these individuals' work was not of the highest scientific caliber. In a confidential note to employees of BATCo and Brown & Williamson, Boyse summarized a meeting between the ETS Advisory Group of the Tobacco Advisory Council and R.J. Reynolds on January 29, 1988. In this summary, Boyse stated that "RJR pointed out that although the abilities of Gray Robertson [a spokesperson and expert witness for the United States tobacco industry on ETS issues] as a presenter are undeniable, this is not the case for his scientific abilities. They felt, in particular, that his methodology could not stand up to scientific scrutiny, and that some of his data was questionable."

286. A February 23, 1988 memorandum from Dr. Herbert E. Osmon, Vice President of External Affairs for R.J. Reynolds, sent to G.R.D. Marco and A.W. Hayes, both R.J. Reynolds scientists, indicated R.J. Reynolds's efforts to create a scientific witness program in coordination with Defendants' research needs. In this document, Osmon wrote that the "witness" program was being "aggressively pursued" in order to achieve the industry's "need for scientists who would be willing to support our science in public."

287. Through the 1980s, Shook, Hardy & Bacon continued to play a role in witness recruitment and preparation for pro-smoking issues. A June 28, 1988 memo from Shook, Hardy & Bacon attorney Donald Hoel stated that Shook, Hardy & Bacon's primary focus during the past

decade had been "1) developing scientific witnesses, consultants, and materials, 2) clearing public statements and publications prepared in response to then-current issues by PM and TI staff and 3) advising both PM and TI regarding company and industry activities."

288. By 1989, Philip Morris, led by the efforts of the law firm Covington & Burling, had successfully established tobacco-friendly stables of scientific witnesses around the world to push the Defendants' position that ETS does not cause disease in the public, governmental, and scientific communities.

289. A 1989 R.J. Reynolds memo from R.J. Reynolds scientist Charles Green to R.J. Reynolds employees S.B. Witt, J.A. Goold, R.J. Marcotullio, T.L. Ogburn, Jr., W.E. Ainsworth, G.D. Newton, D.B. Fishel, W.D. Dahne, B.C.W. Leonard, and C.R. Green, revealed that R.J. Reynolds hosted an internal R.J. Reynolds ETS Summit meeting on June 1-2, 1989 to update on the current situation and develop a strategic plan for improving intra-company coordination and cooperation. This document indicates that possible topics for this meeting included CIAR, VdC Research Activities, In-House ETS Research Program, Cooperative Programs with Philip Morris, BATCo, etc., Tobacco Institute programs, industry-wide Scientific Witness Programs, R.J. Reynolds Scientific Witness Programs, CORESTA, and the International Tobacco Information Center.

290. In 1989, Covington & Burling attorney John P. Rupp helped organize a private invitation-only symposium on ETS and Health at McGill University in Montreal, Quebec, at which a number of scientists from both the United States and the international arena attended.. Rupp hand picked the invited scientists from the scientific witness teams that many of the tobacco companies had developed. The symposium was paid for by Philip Morris and the

Tobacco Institute, and the results of the symposium were made public and published.

291. By the 1990s, the Tobacco Institute's interests in witness development programs for the industry was evident by the evolution of the Scientific Witness Team. By January 1990, the Tobacco Institute Scientific Witness Team was comprised of individuals with a wide range of expertise – a pulmonary doctor, an industrial hygienist, an epidemiologist – who were all available to the Tobacco Institute on a consulting basis for legislative or regulatory hearings on ETS, for which the Tobacco Institute would ask these witnesses to present on behalf of the Tobacco Institute and its member companies. These scientists were chosen based on their credentials and on their willingness to work with Defendants. Fewer than twenty scientists were on the scientific witness team at any one time since people would periodically drop out of the program. During the early to mid 1990s, these scientists included, among others, Gio Gori, Jack Peterson, David Weeks, Sorel Schwartz, and Nancy J. Balter. The Tobacco Institute's Scientific Witness Team, as a group, did not receive training from the Tobacco Institute, but if individual scientists were going to be in public settings - rather than doing literature reviews - they received media training. This type of training included advice on how to interact with media representatives.

292. By October 1990, Shook, Hardy & Bacon was conducting and coordinating non-privileged activity on ETS research for at least three companies. This activity was used for industry witness development for future tobacco litigations. Shook, Hardy & Bacon was billing Philip Morris for its share of (a) the law firm's efforts to develop pro-tobacco scientific witnesses on ETS and (b) the firm's efforts in assisting Philip Morris's efforts with CIAR.

293. As the need for pro-tobacco views and statements on ETS became more evident to

the industry during the 1990s, the Tobacco Institute developed a new group of scientific witnesses focused solely on ETS issues. This group was referred to as the "truth squad." This group of scientific witnesses included Jack Peterson, David Weeks, and Larry C. Holcomb. The "truth squad" traveled throughout the United States, making pro-industry ETS public statements, made media appearances, gave legislative testimony, and wrote editorials and opinion pieces on indoor air quality issues and the role played by ETS. By 1997, these consultants were no longer doing media tours.

294. A 1994 industry report titled "1994 Projected Expert Witness Needs" prepared for the Tobacco Institute listed the type of experts as well as the related costs needed for four major issue areas: 1) taxes, 2) Smoking/ETS, 3) Youth/ADAMHA/FDA, and 4) Fire-safe cigarette.

295. During the 1990s, the law firm of Covington & Burling took over much of the industry's activities and coordination of scientific witness development. A February 20, 1998 draft memo by Covington & Burling attorney David H. Remes explained Defendants' view that organizing scientific witnesses to attack the weakness in evidence supporting the harmfulness of ETS was the best way to maintain an "open controversy" on ETS and avoid smoking restrictions. Law firms have historically been a tool that Defendants have used to secure their joint objectives, and in the February memo, Remes explained that Covington & Burling, as an outside entity, was in a better position than its client, Philip Morris, to coordinate a multiple tobacco company effort on ETS.

296. Covington & Burling developed and maintained an ETS scientific literature database on behalf of the Tobacco Institute. This database had two purposes: 1) to allow the law firm to identify helpful scientific witnesses and 2) to prepare responses to scientific reports that

were adverse to the tobacco industry's position.

297. When Covington & Burling picked scientific witnesses for Philip Morris and the Tobacco Institute, it carefully took into consideration whether or not an individual had made critical statements on the industry's positions on tobacco and smoking and health related issues.

298. Attorneys and scientists worked together on ETS witness efforts. John P. Rupp, of Covington & Burling, worked with Philip Morris scientist Helmut Gaisch, Neuchatel, Switzerland, to gather scientific witnesses for the tobacco industry on ETS issues. This effort was part of the "White Coat" project. Rupp, on behalf of his clients, would attend meetings with Gaisch and discuss the science and these scientific consultants.

299. Covington & Burling's work to develop scientific witnesses on ETS in Asia was done on behalf of, and costs shared by, Philip Morris, BATCo, and Japan Tobacco Institute.

F. Center for Indoor Air Research (CIAR)

(1) Formation

300. Members of the Enterprise, specifically Philip Morris, R.J. Reynolds, Lorillard, and the Tobacco Institute on behalf of its member companies, pooled their resources and coordinated their activities with respect to ETS issues through a variety of mechanisms and committees. The purpose of the various industry ETS committees was to fund research to benefit litigation and to fill in gaps in the knowledge on ETS to better defend the Enterprise.

301. In 1987, a new organization dedicated solely to indoor air quality and ETS

research was organized. The organization came about through the joint efforts of various the Tobacco Institute committees, the ETS Advisory Group – also known as the Hoel committee due to the involvement of Shook, Hardy & Bacon attorney Donald Hoel – and a subcommittee regarding indoor air research led by Mary Ward, Counsel for R.J. Reynolds. A June 15, 1987 memo from Peter Sparber, Vice President of Public Relations for the Tobacco Institute, to Sam Chilcote, Jr., President of the Tobacco Institute, and William Kloepfer, Jr., Tobacco Institute Senior Vice President for Public Relations, stated that Ward's subcommittee related to the new organization was in its final stages and that the ETS Advisory Group was one of the groups responsible for approving the inception of this new organization.

302. In March 1988, Philip Morris, R.J. Reynolds and Lorillard formed the Center for Indoor Air Research ("CIAR") in an effort to pool their efforts on ETS research and to disassociate it and avoid confusion with the name of the Tobacco Institute. The Tobacco Institute assisted with the initial organization of CIAR.

303. CIAR furthered the unlawful goals of the Enterprise by: (1) coordinating and funding Defendants' efforts to generate evidence to support its position that there remains an "open controversy" as to the health implications of exposure to ETS; (2) leading the attack on government efforts to act on evidence linking ETS to disease; and (3) acting as a "front" organization for tobacco funds so that CIAR appeared to be an independent research funding organization.

304. According to CIAR's proposed by-laws, its mission was to "exist to encourage scientific inquiry and appropriate public policy related to the composition and possible health effects of indoor air." By May 1989, CIAR's more complete stated mission was "to create a

focal point organization of the highest scientific caliber to sponsor and foster quality, objective research in indoor air issues including environmental tobacco smoke and to effectively communicate research findings to the broad scientific community."

305. The first members of the CIAR Board of Directors in 1988 included Dr. Gary T. Burger, Vice President of R.J. Reynolds; Dr. Charles R. Green, R.J. Reynolds scientist; Dr. Vello Norman of Liggett; Dr. Thomas S. Osdene, Philip Morris Director of Research; Dr. Robert A. Pages, Philip Morris scientist; and Dr. Alexander W. Spears, President of Lorillard.

306. Philip Morris, R.J. Reynolds, and Lorillard were CIAR's charter members and provided CIAR with the majority of its funding. According to a May 3, 1995 CIAR memorandum from Dr. Max Eisenberg, Executive Director of CIAR, to board members Green of R.J. Reynolds, Richard Carchman of Philip Morris, and Alexander Spears of Lorillard, the annual contributions to CIAR for that year by these three companies were \$1,966,049, \$3,505,010, and \$539,937 respectively.

307. In addition to these three charter members, CIAR also had regular and associate members who were people or organizations interested in indoor air quality research, but who were not founding members. These members included, among others, Consolidated Safety Services, ENV Services, Inc., Meckler Engineers Group, and Universal Corporation.

308. A CIAR Science Advisory Board was created upon the CIAR's establishment. The SAB consisted of a number of scientists from varying fields, and was "assembled to assist in the formation review of the research program." In May 1989, the SAB consisted of Jared Cohon, Ph.D, James Crapo, M.D., Gareth Green, M.D., Irving Kessler, M.D., Morton Lippman, Ph.D., Demetrios Moschandreas, Ph.D., and Alfred Wolf, Ph.D.

309. CIAR'S decisions with respect to funding research were very similar to CTR's: CIAR had two methods of funding research on ETS. The first was to have research proposals submitted to and reviewed by peer reviewers and then by the SAB. The SAB then made recommendations for research project funding. These recommendations were evaluated and put to a final vote by the CIAR Board of Directors. The second was to have projects proposed and funded by the CIAR board directly without the review of the SAB.

310. CIAR's principal offices were located in Linthicum, Maryland.

311. The dissolution of CIAR was authorized by its voting members on October 7, 1999. See discussion in Section I.G. below.

(2) CIAR Special Projects

312. Lorillard, Philip Morris, and Brown & Williamson also conducted "special projects" through CIAR similar to the CTR Special Projects discussed above. In addition to scientific grants approved through the SAB, CIAR also had an "applied research" program through which it approved projects requested by the funding entities, which were used to develop evidence to support Defendants' litigation positions on ETS issues.

313. These projects were decided by CIAR's Board of Directors. For example, on November 13, 1996, CIAR's Board of Directors considered Edward Domino's proposal entitled "Dietary Nicotine: A Possible Source of Blood, Salivary, and Urinary Cotinine."

314. "Applied" or special project research done for CIAR also sometimes entailed an initial pilot study on the ETS-related topic to see what the results a full proposed "applied" project might be, such as the 1993 ETS cross-contamination field study.

315. Lorillard, Philip Morris, and Brown & Williamson agreed to continue to fund nine

of the twenty-three CIAR projects after dissolution of CIAR. The agreed upon participation in the cost of the work was Philip Morris 66%, Brown & Williamson 22%, and Lorillard 12%. The single year cost for the nine proposals was \$320,000 (the 1998 and 1999 annual budgets were approximately \$540,000). "However, the total budgets for multi-year proposals are due before CIAR is disbanded" because after that they would have no control over how the money was spent.

G. Dissolution of CTR, the Tobacco Institute, and CIAR

316. In November 1998, most of the State Attorneys General entered into a settlement agreement, referred to as the Master Settlement Agreement ("MSA"), with Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, Liggett, and Commonwealth Brands, Inc., to resolve all pending Medicaid recoupment litigation. The State Attorneys General for Florida, Mississippi, Minnesota, and Texas already had entered into settlements with tobacco defendants prior to November 1998. As part of the MSA, CTR, the Tobacco Institute, and CIAR were required to cease all operations and be dissolved. In addition, the tobacco products manufacturers signing the MSA were prohibited from reconstituting CTR or its function in any form.

(1) CTR

317. Pursuant to a dissolution plan previously negotiated and agreed to between CTR and the Attorney General of the State of New York, CTR was to cease all operations and be dissolved in accordance with the laws of the State of New York, with the preservation of all applicable privileges held by an member company of CTR.

318. On April 30, 1998, the Attorney General of the State of New York had

commenced a special proceeding that sought, among other things, the dissolution of CTR. On May 8, 1998, in connection with State of Minnesota v. Philip Morris Inc., C1-94-8565 (Ramsey County, Minnesota), Brown & Williamson, Lorillard, Philip Morris, and R.J. Reynolds (the four Class A members of CTR) entered into a Settlement Agreement and Stipulation for Entry of a Consent Judgment with the State of Minnesota ("Minnesota Settlement Agreement"), in which, among other things, the companies agreed to dissolve CTR and agreed to the entry of a consent judgment ("Minnesota Consent Judgment"). Section VI of the Minnesota Consent Judgment, entered on May 19, 1998, provided that, within ninety days of May 8, 1998, CTR would cease all operations except as necessary to comply with existing grants or contracts and to continue its defense of other lawsuits and that CTR would be disbanded and dissolved within a reasonable time period thereafter.

319. A special meeting of the members of CTR was held on October 19, 1998 at CTR's offices in New York City at which the Plan of Corporate Dissolution and Distribution of Assets of The Council for Tobacco Research-U.S.A., Inc. ("Plan") was submitted to the members for consideration and approved by a unanimous vote of the members present. The Class A members present were Brown & Williamson, represented by Senior Vice President Ernest Pepples; Philip Morris, represented by Senior Vice President of Operations John Nelson; Lorillard, represented by Chairman and CEO Alexander Spears; and R.J. Reynolds, represented by President and CEO Andrew Schindler. The Class B members present were Bright Belt Warehouse Association, Tobacco Association, Inc., Burley Auction Warehouse Association, Burley Tobacco Growers Cooperative Association, Inc., and United States Tobacco. Class B member Burley Stabilization Corporation was not present and did not vote on the Plan.

320. CTR reached an agreement with the Attorney General of New York with respect to the terms of the Plan, and the New York court entered an Order Approving CTR's Plan of Corporate Dissolution and Certificate of Dissolution on or about October 21, 1998.

321. The Plan permitted a winding up of CTR's research-funding activities and funding of the research grants-in-aid that had been previously awarded by CTR. Winding up of non-litigation activities was to be completed no later than the 180th day after the date of entry of an order approving the Plan.

322. The Plan allowed CTR to continue to defend itself and to protect its interest in litigation, and to assist in the defense of the tobacco companies and CTR's other members in litigation, pursuant to joint defense agreements or arrangements. CTR also was permitted to continue to employ and/or retain as consultants personnel that it deemed reasonably necessary to conduct litigation-related activities.

323. The Plan did not limit CTR's existence for purposes of conducting litigation-related activities. Section 6.3 (Duration) of the Plan stated that "in light of the large number of lawsuits pending against CTR and the possibility that numerous additional lawsuits will be filed against CTR in the future, CTR believes it is very likely that this need will continue to exist for a number of years after the conclusion of the winding up of CTR's research-funding activities."

(2) The Tobacco Institute

324. Pursuant to a plan of dissolution that was to be negotiated by the Attorney General of the State of New York and the Original Participating Manufacturers (Brown & Williamson, Lorillard, Philip Morris, and R.J. Reynolds) in accordance with Exhibit G of the MSA, the Tobacco Institute was to cease all operations and be dissolved in accordance with the laws of the

State of New York and under the authority of the Attorney General of the State of New York, with the preservation of all applicable privileges held by any member company of the Tobacco Institute.

325. According to the MSA, the Tobacco Institute and the Attorney General of New York were to agree on a not-for-profit health or child welfare organization that was to be named as the beneficiary of any Tobacco Institute assets that remained after lawful transfers of assets and satisfaction of the Tobacco Institute's employee benefit obligations and any other debts, liabilities or claims. The Tobacco Institute retained the right to continue to defend its litigation interests with respect to any claims against it that were pending or were brought or threatened in the future. The Tobacco Institute also was allowed to continue to engage such employees as reasonably needed for the sole purpose of directing and supporting its defense of ongoing litigation. However, as soon as the Tobacco Institute has no litigation pending against it, the MSA requires the Tobacco Institute to dissolve completely and cease all functions.

326. The Tobacco Institute's Plan of Corporate Dissolution and Distribution of Assets was approved on August 7, 2000, by its Class A members: Ernest Pepples, Senior Vice President of Brown & Williamson; Michael Szymanczyk, CEO of Philip Morris; Alexander Spears, Chairman of Lorillard; and Charles Blixt, Executive Vice President and General Counsel of R.J. Reynolds.

327. The Tobacco Institute's Plan of Corporate Dissolution and Distribution of Assets was also adopted without meetings by the consent in writing of the Tobacco Institute Board of Directors. The members of the Board of Directors at the time were Nicholas Brookes and Ernest Pepples for Brown & Williamson, Ronald Milstein and Alexander Spears for Lorillard, Tommy

Payne and Andrew Schindler for R.J. Reynolds, Michael Szymanczyk for Philip Morris, and Howard Liebengood for Philip Morris Companies.

328. The Supreme Court of the New York County entered an Order Approving the Tobacco Institute's Plan of Corporate Dissolution and Certificate of Dissolution on or about September 1, 2000.

(3) CIAR

329. Pursuant to the MSA, CIAR was required to cease all operations within forty-five days after Final Approval and be dissolved in a manner consistent with applicable law, with the preservation of all applicable privileges, including those held by any member company of CIAR.

330. The dissolution of CIAR was authorized by its voting members on October 7, 1999.

331. At the time of CIAR's dissolution, its directors were Richard Carchman of Philip Morris, Chairman of the Board; Scott Appleton of Brown & Williamson; Tilford Riehl of Brown & Williamson; Daniel Heck of Lorillard; Alexander Spears of Lorillard; Steve Sears of R.J. Reynolds; Robert Suber of R.J. Reynolds; and Helmut Reif of Philip Morris Europe.

332. The Certificate of Dissolution was signed by CIAR Executive Director Max Eisenberg on December 6, 1999, and filed with the Secretary of State of the State of Delaware on December 21, 1999.

H. Committees

(1) Research Review Committee/Research Liaison Committee

333. In February 1974, a consensus had developed that an industry committee should be established to review the industry's support of medical research and to make recommendations

as to the future course industry support should take. In fact, at a CTR meeting, Lorillard, through its President Curtis Judge, only agreed to participate in an increased budget for CTR on condition that there be a review of industry research.

334. Judge suggested that the research review committee be composed of two members of the Executive Committee, two members of the Committee of Counsel, two company scientific directors, Tobacco Institute Senior Vice President William Kloepfer, Tobacco Institute President Horace Kornegay, CTR Scientific Director William Gardner, CTR public relations advisor Leonard Zahn, and Shook Hardy & Bacon attorney David Hardy. William Smith, Chairman of R.J. Reynolds, suggested that there be only one representative from each Tobacco Institute member company on the committee. One set of suggested guidelines for an Industry Committee for the Review of Industry's Overall Independent Scientific Research Effort was (1) to reconsider the CTR research program, both SAB grants and special projects; (2) to reconsider non-CTR research projects undertaken by one or more individual tobacco companies; and (3) to consider the establishment of a means of coordinating the research undertaken in (1) and (2).

335. Smith, Chairman of the Tobacco Institute's Executive Committee, wrote in April 1974 that agreement had been reached with each of the major manufacturers as to their representative on the "committee to study the research programs funded by our industry, both through CTR and independent projects": Curtis Judge, President of Lorillard; Clifford Goldsmith, President of Philip Morris; Henry Roemer, General Counsel for R.J. Reynolds; Cyril Hetsko, Senior Vice President and General Counsel for American; I.W. Hughes, Vice President of Defendant Brown & Williamson; and William Bates of Liggett. David Hardy of Shook, Hardy & Bacon would chair the committee; Horace Kornegay and William Kloepfer would

represent the Tobacco Institute; and William Gardner and Leonard Zahn would represent CTR. Smith understood that the members of the committee were charged with the responsibility for studying (a) industry research programs, and (b) research projects funded outside of CTR, such as those at Harvard, Washington University, and UCLA, and reporting their recommendations to the chief executives of the six major cigarette companies - American, Brown & Williamson, Liggett, Lorillard, Philip Morris, and R.J. Reynolds.

336. The Research Review Committee, at its first meeting on May 21, 1974, agreed that only company representatives were to vote, while the remaining members were present as consultants to the company members, and designated William Shinn, Shook Hardy & Bacon attorney, as committee secretary. In its October 1974 report, the committee recommended that a Research Liaison Committee be appointed to serve indefinitely.

337. The Research Liaison Committee ("RLC") was approved at a meeting of the Tobacco Institute on October 3, 1974, as a successor to the Research Review Committee which had been established in April 1974. The aims and functions of RLC were to devise and implement fiscal and peer review for institutional grants, and to consider and make recommendations with respect to proposals for institutional and other research projects in light of total industry and other research effort.

338. For example, at its November 1974 meeting, the RLC discussed an expanded version of the Colorado-Hawaii research proposal on Genetic and Environmental Bases of Tobacco-Related Behavior, a study designed to test, by elaborate epidemiological and experimental methods, the hypothesis that smoking behavior and increased susceptibility to certain chronic diseases were independently genetically determined; and decided to have Gardner

(CTR's Scientific Director) and Sheldon Sommers (member of CTR's SAB) make a site visit to this project.

339. At the January 1975 meeting, the RLC decided that the expenses of considering the feasibility of research projects and proposals would be handled as CTR Special Projects and funded by those companies agreeing to the research study; decided that participating companies would pay for the auditing expenses for the Harvard institutional project, the UCLA institutional project, and the Washington University institutional project; discussed problems created by Henry Meadows, attorney for Harvard Medical School, regarding funding obligations for the Harvard/Huber research project; and discussed a proposal for a scientific cruise-conference on the "Regulatory Influence of Smoking on Human Behavior" at which twenty scientists would give papers on the beneficial effects of smoking. See the discussion of the Huber project in Section IV.A. below.

340. At its March 1975 meeting, the RLC discussed and then voted to offer Addison Yeaman a one-year position as CTR Chairman and Chief Executive Officer to replace Henry Ramm.

341. At its May 1975 meeting, held jointly with the Committee of Counsel, the RLC listened to Dr. Gary Huber explain his problems with the Harvard research grant; voted to continue funding the Harvard project; voted to proceed with the Colorado-Hawaii genetics study, but made no decision on what entity would fund it (i.e., whether it would be a SAB grant, CTR special project, or institutional project); decided that the cruise-conference on the benefits of smoking should be sponsored by neither CTR nor the industry research directors; and discussed nonsmoker exposure research and authorized Hughes to explore the topic further and suggest

specific proposals. Prior to the meeting, a memo entitled "Environmental Tobacco Smoke – Nonsmoker Research" and a two-page document headed "Suggested Areas of Research" were distributed. The memo noted that if the RLC agreed with company executives and attorneys about an organized approach to an industry research effort with respect to nonsmokers and ETS, then the RLC or some other group should be authorized to suggest priorities and initiate discussions with researchers to develop specific research proposals for consideration by the RLC for funding.

342. At its July 1975 meeting, the RLC decided that CTR's expenditures for making site visits related to RLC work would be reimbursed by the participants in the respective projects; rejected the Colorado-Hawaii animal work on the genetics proposal after CTR's Gardner stated that the research could be criticized for its emphasis on nicotine; and decided to table the cruise-conference on the benefits of smoking and have Gardner look into the subject matter and make recommendations for research projects (in response to his assertion that some of the proposed participants did not have the requisite scientific background).

343. At the December 1975 meeting, the RLC discussed a proposal from the Stanford Research Institute for developing a machine to measure carbon monoxide in the work place and public places that would be used for legal and legislative purposes; decided that the Committee of Counsel would decide the manner of funding; decided to conduct a site visit to the Harvard University project in March 1976; decided that out-of-pocket expenses incurred by CTR staff, their consultants, and SAB members in the investigative phase of a proposed project being considered by RLC would be funded through Special Account No. 4, an account maintained by CTR's law firm, Jacob, Medinger & Finnegan; discussed the nonsmoker exposure proposal from

Response Analysis Corp. of Princeton proposing a national survey comparing annoyance about smoking to other daily irritations; saw the survey as one that might develop information (persuasive in regulatory proceedings) that claimed annoyance about smoking is not real and is simply shared by a vocal minority; approved the survey proposal for \$45,000 to be funded through Special Account No. 4; discussed a book containing material on the psychological benefits of smoking and decided Shinn should follow up on the subject with the author; and discussed a proposed brochure on industry research efforts to be published by the Tobacco Institute.

344. At the July 1976 meeting, the RLC discussed the proposal by CTR's Gardner to set up a psychopharmacology planning committee, plan a working conference for 1977 or 1978, and involve all CTR grantees interested in either drug metabolism, location of nicotine action, effect of nicotine competitors or inhibitors, or psychologists' studies of PH effects; tabled Gardner's proposal after heated debate between those attendees who believed a decision on Gardner's proposal should be made by the Committee of Counsel (and no records kept) and those attendees who believed Gardner and the scientists should be allowed to proceed with planning but take no action; discussed and reviewed a proposal from Dr. Shingleton of Duke University Medical School concerning a study that showed that the tobacco growing areas of eastern North Carolina had an increased incidence of lung cancer; and decided to reject the proposal and authorized CTR's Gardner to handle the rejection.

(2) Industry Technical Committee

345. TIRC designated the research directors of its tobacco company members as the Industry Technical Committee in January 1954. The research directors on that first Industry

Technical Committee were H.R. Hanmer of American; Irwin W. Tucker of Brown & Williamson; H.B. Parmele of Lorillard; Robert N. DuPuis of Philip Morris; Grant Clarke of R.J. Reynolds; Hugh Cullman of Benson & Hedges; Clinton Baber of Larus & Bros.; C.S. Stephano of Stephano Brothers; and W.B. Bennett of United States Tobacco.

346. When TIRC was first created, the Industry Technical Committee assisted the TIRC Law Committee and the public relations firm of Hill & Knowlton in screening and selecting potential members for the TIRC Scientific Advisory Board.

347. After the TIRC SAB was in place, the Industry Technical Committee provided technical information to the SAB concerning tobacco, its constituents, and other data. The chairman of the ITC was invited to sit in on all SAB meetings in order to effect adequate liaison. Members of the Industry Technical Committee attended SAB meetings and answered questions from the SAB.

348. In a 1970 commentary, the research directors of the cigarette companies (Helmut Wakeham of Philip Morris; Preston Leake of American; Alexander Spears of Lorillard; Murray Senkus of R.J. Reynolds; W.W. Bates of Liggett; and I.W. Hughes of Brown & Williamson) expressed their displeasure in CTR's research program, CTR's focus on studies of diseases associated with smoking, CTR's defensive posture, and CTR's lack of guidance for future strategy of the tobacco industry in the area of smoking and health. The report offered opinions on how CTR might become more effective as an instrument for the good of the tobacco industry.

(3) International Organizations, Committees, and Groups

349. Defendants worked together over a period of time to form, control, use and participate in overseas entities to further the shared objectives of the Enterprise, the alleged

conspiracy and the scheme to defraud, including, but not limited to, the International Committee on Smoking Issues ("ICOSI"), which became the International Tobacco Information Inc. ("INFOTAB") and its successor, the International Tobacco Documentation Center ("TDC"); the Cooperation Centre for Scientific Research Relative to Tobacco ("CORESTA"); and the Tobacco Manufacturers' Standing Committee ("TMSC"), which became the Tobacco Advisory Counsel ("TAC") and then the Tobacco Research Council ("TRC").

(a) ICOSI/INFOTAB/TDC

(i) ICOSI

350. On March 24, 1977, R.A. Garrett of Imperial Tobacco wrote to Alexander Holtzman, Associate General Counsel at Philip Morris, regarding "Operation Berkshire," an upcoming meeting between the executives of certain tobacco companies. Participants included representatives from Defendants BATCo, Philip Morris, and R.J. Reynolds and Reemstma, Rothmans International, and Imperial Tobacco. The purpose of the meeting was to form a group to develop a common international position on smoking and health issues. The group formed was called the International Committee on Smoking Issues (ICOSI). The initial objective of this group was to get a voluntary agreement that no concessions beyond a certain point would be voluntarily made by the members, and that any governments demanding concessions would be forced to litigate. The "open controversy" strategy, see section IV.A. below, was made the key topic of this meeting and the position paper embodying this at the meeting was reviewed and edited by the law firm Jacob & Medinger, which represented R.J. Reynolds, Brown & Williamson, and CTR.

351. ICOSI was formally registered as a non-profit association in Geneva, Switzerland,

on December 1, 1978. The seven founding members of ICOSI were: Defendants BATCo, Philip Morris, and R.J. Reynolds, and Gallagher, Imperial, Reemstma and Rothmans. They were all equal members with one vote apiece and shared expenditures equally.

352. The purposes of ICOSI were set forth in its charter as:

The association has as its purpose the establishment of a forum for exchange of views and information on international smoking issues (to include tobacco and health) by the coordination of data and information in economic, scientific, and technical areas. The general objectives are to broaden the knowledge of its members, of consumers, and of appropriate authorities. In large part accomplishment of these objectives will be sought by providing information to various national and other tobacco trade associations and by serving as a resource of expertise, data analysis and opinion on these subjects of interest to the industry and its publics. The dissemination of the generality of this information will be made in the form of bulletins, reports, articles, surveys, pamphlets, and other analogous means.

353. ICOSI's key officers included the chairmen and other principals of the member companies that attended the Operation Berkshire meeting. They included: Patrick Sheehy, Chairman, and Kit Stuart Lockhart, Deputy Chairman, of BATCo; William Hobbs, Chairman, for R.J. Reynolds; and for Philip Morris, William Murray, President of Philip Morris Europe, Alexander Holtzman, Associate General Counsel, and Andrew Whist, Director Corporate Affairs of Philip Morris (Australia) Ltd.

354. There were two governing groups of ICOSI. The Board of Governors was responsible for establishing policy. It included one principal from each member company, and the Board met at least annually. The Executive Committee was responsible for implementing the policies of ICOSI in those areas where decision-making powers had been delegated to the Committee by the Board of Governors. It was comprised of one representative from each

company represented on the Board of Governors. The frequency of Committee meetings was determined by its members. A Secretariat was also established in a centrally-located European city under the direction of a Secretary General. Its tasks would include: handling administrative functions for ICOSI, monitoring developments in international organizations, and being a clearing-house to provide information relative to tobacco issues to members of the industry, tobacco trade associations, and other interested groups.

355. Representatives of the participating Defendants attended ICOSI meetings of two working groups and three task forces: the Social Acceptability Working Group, the Medical and Behavioral Research Group, the EEC Task Force, the Product Liability Task Force and the Swiss Referendum Task Force.

356. For example, Frank Colby, Manager of R.J. Reynolds Scientific Information Division, prepared draft notes to file dated July 28, 1977, on "Meeting of the Working Party on Medical Research of the ICOSI. Shockerwick House, July 21 and 22, 1977" and remarked that the R.J. Reynolds objectives were mostly met successfully.

357. Colby also sent an R.J. Reynolds inter-office memo dated October 16, 1977 to J.R. Peterson, Vice President R.J. Reynolds, William D. Hobbs, President R.J. Reynolds, and Samuel Witt, General Counsel R.J. Reynolds, regarding a meeting of the ICOSI Working Party on Medical Research to propose research topics on non-smokers' issues.

358. Samuel Witt, General Counsel for R.J. Reynolds, drafted a memo to file dated November 18, 1977, regarding the November 10-12, 1977 meeting of ICOSI, in Lausanne, Switzerland.

359. Imperial Tobacco Ltd. wrote a letter to Colby dated November 25, 1977,

regarding conclusions reached by ICOSI principals in Lausanne, Switzerland, and attaching an ICOSI directive to be the basis of further work. A December 4, 1977 meeting was scheduled by Philip Morris at Neuchatel, Switzerland, and a further meeting of the working party by R.J. Reynolds was also scheduled January 1, 1978 or January 7, 1978 in Cologne, Germany.

360. Helmut Wakeham, Vice President Research and Development Philip Morris, sent an August 7, 1979 memorandum to Hugh Cullman on Dr. Gio Gori, a former National Cancer Institute scientist, stating that Gori, was well qualified, was looking for a job, could be helpful to the tobacco industry in the smoking and health field, and had international connections. Wakeham concluded by asking if Gori might be "useful to ICOSI."

361. In March 1980, the Executive Committee was disbanded. The Board of Governors then consisted of two named representatives of each member company who met at least twice a year, including one meeting where the Chief Executives were to attend. Each member company was to have one vote at the meetings of the Board of Governors. Chairmanship was held in rotation by each member company. William D. Hobbs, Chairman of R.J. Reynolds, was Chairman of the Board of Governors in 1979 until March 31, 1980.

362. The Tobacco Institute developed a Tobacco Institute Backgrounder entitled "Tobacco in Developing Nations" and announced its availability in a Tobacco Institute newsletter on January 14, 1980. Copies were to be forwarded to international public relations personnel of member companies of the overseas trade associations and ICOSI.

(ii) INFOTAB

363. ICOSI was renamed the International Tobacco Information Center/Centre International d'Informatin Du Tabac (INFOTAB) and registered in Geneva, Switzerland on

December 8, 1980.

364. Five members of INFOTAB attended the November 16, 1981 Tobacco College of Knowledge, a seminar put on by Tobacco Institute to bring its managers and other industry employees up to speed on the history of tobacco and tobacco litigation.

365. INFOTAB's charter was filed with the Swiss Government on November 2, 1982. INFOTAB's charter was substantially the same as ICOSI's had been.

366. The INFOTAB Board of Governors in April 1984 were: Hugh Cullman, Chairman of Philip Morris, R.L.O. Ely of BATCo, Andrew Whist of Philip Morris, and RJ Marcotullio of R.J. Reynolds were on what was then changed to the Board of Directors.

367. On October 15, 1981, Donald Hoel of Shook, Hardy & Bacon sent a letter to Horace Kornegay, President of the Tobacco Institute, transmitting a draft of a "Public Smoking Paper" for use by INFOTAB.

368. J. Kendrick Wells of Brown & Williamson sent a memo to Ernest Pepples of Brown & Williamson dated October 27, 1981 concerning a meeting held on October 26, 1981 with Dr. Blackman, director of the Group Research and Development Center of BATCo in Southampton, England. At this meeting Wells expressed concern with a presentation slide titled "Basic Approach to Government and Medical Authorities." In October 1981, Blackman then made substantive changes to a document entitled "Basic Approach to Government and Medical Authorities." The reason for the change was that the initial document "admit[ted], despite a disclaimer, that cigarettes are harmful to health in proportion to delivery." The document also "runs against important argument the U.S. industry is making in response to the FTC Staff Report and may need to make in response to charges that cigarettes are addictive." Blackman

agreed to send the changed document to the other INFOTAB members.

369. In anticipation of a 1983 Surgeon General's Report on heart disease, the Tobacco Institute issued a report "Cigarette smoking and heart disease," which concluded: "Whether cigarette smoking is causally related to heart disease is not scientifically established." The report was distributed to Tobacco Institute member companies who were requested not to distribute the publication widely, but to use it for internal purposes until the Surgeon General's report on heart disease was released, when additional copies of the Tobacco Institute report would be available. INFOTAB distributed the report as well, advising that the Tobacco Institute would acquaint news reporters with its views about smoking and heart disease before the 1983 Surgeon General's report.

370. E.A.A. Bruell, Chairman of BATCo, wrote "Letter to All No. 1s of Operating Companies" entitled "Relations with INFOTAB, National Manufacturers Associations (NMAs) and Competitors" in response to a September 2, 1983 advertisement placed by a Philip Morris affiliate in Holland regarding Barclay. Bruell noted the advertisement "is the first occasion of which we are aware when a competitor has: 1. Raised the health issue to gain competitive advantage. 2. Quoted and thereby endorsed a report of an anti-smoking lobby . . . to attack another company in the industry." BATCo withdrew from INFOTAB.

371. On March 21, 1986, INFOTAB General Secretary Bryan Simpson wrote to Arthur Stevens of Lorillard to confirm Lorillard's withdrawal as a member of INFOTAB, acknowledging that "we are aware of your major contribution to [Defendant] TI, and the benefits that we receive indirectly."

372. An August 1986 memo set forth the coordinated efforts of the tobacco industry to

develop industry-friendly science on ETS and included projects managed by the ETS Advisory Group (the "Hoel Committee"), the Tobacco Institute, Shook, Hardy & Bacon, Covington & Burling, and INFOTAB.

373. R.J. Reynolds scientist Charles Green explained to INFOTAB on October 15, 1986 (as part of his work for the ETS Advisory Committee) that lawyers pressured scientists to influence the results of a proposed study before it was started, and that, therefore, tobacco scientists often did "pilot" studies to give the lawyers this information.

374. In 1988, Philip Morris laid plans to create an International Center for Indoor Air Research ("ICIAR") which it envisioned working cooperatively with INFOTAB and CIAR in the United States.

375. A June 28, 1988 memorandum addressed to Todd Sollis, Assistant General Counsel of Philip Morris, from Donald Hoel, attorney with Shook, Hardy & Bacon, described Shook, Hardy & Bacon's role with respect to INFOTAB. He stated: "SHB, as counsel to PM and other international manufacturers, was instrumental in the founding of INFOTAB to help strengthen and coordinate the activities of the various national manufacturers associations. The firm remains active in the operation of INFOTAB. It monitors the meetings and clears the draft minutes of the INFOTAB Board of Directors and the Global Issues Working Party, as well as INFOTAB workshops. All materials prepared by INFOTAB on smoking and health issues, including briefing documents sent to national manufacturers associations and presentations by the INFOTAB staff, are cleared by SHB in order to protect the member association and member companies. SHB also approves all public relations campaigns, tactics and strategies which address smoking and health issues."

376. An INFOTAB document dated January 30, 1989 outlined how to "Attack WHO [World Health Organization]." The tactics it suggested included the following: "criticize budget management, address health priorities, expose resource blackmail, highlight regional failures, attack 'behaviourism'. Counter on public issues, discredit activists' credentials, engage in statistical warfare, invest in press relations, show impact of 'cuckoo' organisations." The document also suggested the industry should "attack IOCU" with the following program goals: "relieve NGO pressure on WHO, expose activists' 'credentials', counter behaviourist regulation, correct anti-business slant." "Allocate the resources necessary to stop [WHO] in their tracks."

377. In 1990, members of INFOTAB and several European tobacco manufacturers met with representatives of domestic manufacturers, including R.J. Reynolds, at the offices of the Tobacco Institute in Washington for purposes of planning the Global Argumentation Project, which was an effort to develop a standardized and comprehensive collection of argumentation papers which could be used by local management and National Manufacturers Associations for lobbying, public information campaigns, or as base documents for responding for public health advocates. Notification of the meeting was sent to representatives from BATCo, Philip Morris, R.J. Reynolds, the Tobacco Institute, and Shook, Hardy & Bacon.

378. INFOTAB subsequently issued a "Spokesperson's Guide" for tobacco industry use. The introduction stated that the manual is for the use of the recipient and that no copies were to be made. The manual addressed each and every claim against the industry and provided the standard script that all users were to use to respond to such claims. The manual stated that cigarette smoking was not addictive.

379. In 1990, INFOTAB also issued an INFOTAB Publication: "CHILDREN &

SMOKING – THE BALANCED VIEW" that addressed various WHO claims. It stated that tobacco is not addictive, and that there were inconsistent findings whether smoking causes low birth weight, birth defects and delayed mental and physical development in infancy.

380. In 1991, INFOTAB created an ETS kit that was distributed to National Manufacturer Associations (including the Tobacco Institute) and the public affairs departments of member companies for certain purposes, including the goal of demonstrating the inconclusive nature of claims that ETS has harmful effects by bringing to light the "scientific controversy" over such claims.

381. An August 21, 1991 paper for the International ETS Management Committee ("IEMC") was originally prepared as the annual ETS update for INFOTAB.

382. A letter dated March 6, 1992 from William Kloepfer of Shook Hardy & Bacon to Robert Kaplan of Philip Morris International Inc., Ron Tully of INFOTAB, and Graciela Fernandez Ivern provided information about Surgeon General's Report "Smoking and Health in the Americas," which would be released on March 12, 1992. It explained that the Tobacco Institute would comment, if asked, to United States media and Latin America media; that the Pan American Health Organization (PAHO) would be issuing a country-by-country status report on tobacco prevention and control measures; and that Kloepfer would bring to briefing session materials prepared by Hoel and others.

(iii) TDC

383. On December 4, 1991, the Tobacco Documentation Centre ("TDC") was established, which took over for INFOTAB. Its charter stated: "The Association has as its purpose the establishment of a forum for exchange of views and information on international

tobacco issues by the coordination of data and information in economic, social scientific and technical areas. The general objectives are to broaden the knowledge of its members. In large part accomplishment of these objectives will be sought by providing information to various national and other tobacco trade associations and by serving as a resource of expertise and data analysis on these subjects of interest to the industry. The Association may accomplish all acts relating directly or indirectly to its purpose, as well as acquiring the real and personal property necessary for the attainment of its purpose."

384. The Founding Members of the TDC and subscription levels for each were as follows: BATCo., 20%; Gallaher Ltd., 10%; Philip Morris International Inc., 20%; Reemtsma Cigarettenfabriken GmbH, 10%; R.J. Reynolds Tobacco International, Inc., 20%; and Rothmans International Tobacco Ltd., 20%. Subscription levels of membership categories were based on annual production. On the unanimous proposal from Charter members, the meeting unanimously elected the following persons to the Board of Directors for 1992: D.J. Bacon of BATCo, L.E. Birks of Gallaher, R.J. Marcotullio of R.J. Reynolds International, F.J. Moreno of Philip Morris, C.J. Walther of Reemtsma, and A.A. Woods of Rothmans International. Woods served as chairman.

385. TDC developed a wide range of electronic databases which provided legislative monitoring on issues such as packaging, constituents, product attributes, public smoking, advertising, promotion, fiscal and retailing. Additionally, databases were provided with abstracts of the primary peer-reviewed literature for use in defense of an issues position, as well as for subject review and examination of media commentary. TDC also maintained databases on global taxation trends, consumption patterns, smoking control advocate groups and a calendar of

scientific and public policy events.

386. The TDC was headed by Ronald Tully and Fiona Deroulez.

This new organisation will be concentrating on providing added value information services for the industry globally, to the highest possible standards. Operating from the previous INFOTAB premises at Kew, the TDC will be chaired for the first year by Tony Wood, from Rothmans International Services and we wish him well with his interesting new responsibilities. The ARC will continue to keep in very close touch with Kew and liaison will be well maintained. With the increasing experience of the NMAs and regional groupings like our own ATC, it was inevitable that a fresh approach was appropriate for the industry's future information-related requirements."

387. On April 28, 1992, the International ETC Management Committee ("IEMC"), which was comprised of BATCo, Philip Morris, and R.J. Reynolds, prepared comments for distribution by the TDC regarding the draft EPA Risk Assessment on the health hazards of ETS, which all National Manufacturers Associations ("NMA") were to use in responding to inquiries regarding the draft risk assessment. The document was also provided to TDC member companies.

388. TDC distributed the IEMC ETS position papers, dated May 6, 1992, to the National Manufacturers Association and lead companies, stating that the documents had been cleared for use by BATCo, Philip Morris, and R.J. Reynolds.

389. On June 16, 1992, Philip Morris's Matt Winokur informed Geoffrey Bible, President of Philip Morris, and others at Philip Morris that the EPA talking points prepared by Covington & Burling were "also being used by our international competitors and by National Manufacturers Association via the TDC. This coordinated approach to communications is highly desirable. It enables the entire global industry to espouse a common position immediately, an

essential element in quickly responding to local government and media."

390. In July 1992, the TDC assisted Defendants by identifying activists thought to likely attend the 8th World Conference on Tobacco and Health.

(b) CORESTA

391. The Centre for Cooperation in Scientific Research Relative to Tobacco (CORESTA) was created following the resolutions approved by the First International Scientific Tobacco Congress held in Paris, France on September 10, 1955. It was created "[i]n order to operate a permanent Secretariat for international co-operation in scientific studies relation to tobacco." Its registered offices are located in Paris, France and every world-wide major tobacco company and organization is a member. Meetings were held every two years and as of 1992, CORESTA had approximately 190 members, including BATCo, Philip Morris, Lorillard, Brown & Williamson, Liggett, and R.J. Reynolds.

392. The Defendants recognized the importance of CORESTA and the implications of releasing papers at CORESTA meetings. For example, on November 3, 1971, Helmut Wakeham, Vice President of Research and Development at Philip Morris, sent interoffice correspondence to Alexander Holtzman, General Counsel for Philip Morris, Frank Saunders of Philip Morris Corporate Affairs, and Clifford E. Goldsmith, President of Philip Morris, recommending release of a manuscript entitled "Puff-by-Puff Determination of Carbon Monoxide, Cyanides and Aldehydes in the Gas Phase of Cigarette Smoke" for release at CORESTA/TCRC Conference in October 1972. The paper had been originally completed about a year earlier. Wakeham explained that the two-year delay in its release was to avoid the FTC Testing Laboratory from establishing specifications and/or restrictions on gas phase delivery of

cigarettes.

393. In 1972, a CORESTA meeting was held in Williamsburg, Virginia. Representatives from Philip Morris, Lorillard, Liggett, and R.J. Reynolds were involved in the planning of the conference. An internal Lorillard memorandum from W. D. Okerson, Vice President of Manufacturing, to M. Yellen, Vice President of Advertising, dated January 27, 1970, advocated supporting the meeting because "[i]n line with our attempts to encourage more cooperative activity in the industry, I feel we would have to participate and so recommend."

394. A March 31, 1992 BATCo document described CORESTA as not generally regarded as a lobbying organization, which is what makes it "unique and very valuable" to the industry. The document also discussed the overall structure of CORESTA as follows: there is a General Assembly every two years where every member has one vote; the General Assembly appoints the Board and the Scientific Commission. The Scientific Commission of CORESTA has four sub-groups, Agronomy, Phytopathology, Technology and Smoke.

395. It was BATCo's opinion that the structure of CORESTA at that time was "very restricted" and that "there is no doubt that it needs restructuring to meet the future demands of the Industry." Nonetheless, the resolution of the dispute between BATCo and Philip Morris over the Barclay issue was cited as an example of CORESTA's usefulness. See section IV.C. below.

(c) TMSC/TRC/TAC

(i) TMSC

396. The Tobacco Manufacturers' Standing Committee ("TMSC") was formed in 1956

by joint effort of the members of the United Kingdom tobacco manufacturers. Its stated purpose was "to assist research into questions concerned with the relationship between smoking and health, to keep in touch with scientists and others working on this subject on the U.K. and abroad, and to make information available to scientific workers and the public."

397. As early as 1958, representatives from the TMSC came to the United States and met with, among others, representatives from American, Liggett, Philip Morris, and the TIRC, as well as the Industry Technical Committee. The report noted that "with one exception . . . the individuals who we met believed that smoking causes lung cancer if by 'causation' we mean any chain of events which leads finally to lung cancer and which involves smoking as an indispensable link."

398. By August 31, 1959, the members of the TMSC were Alexander H. Maxwell, Chairman; E.R. Adler of Carreras Ltd; R.S.W. Clark of The Imperial Tobacco Co. Ltd.; E.J. Foord of Gallaher Ltd.; A.D. McCormick and D.M. Oppenheim of BATCo; E.J. Partidge of The Imperial Tobacco Co. Ltd.; P.A.G. Phillips of Godfrey Phillips Ltd.; J. Wallington of Ardath Tobacco Co. Ltd.; and F.H. Wright of J. Wix & Sons Ltd. TMSC also had a Technical Sub-Committee which contained members from the various United Kingdom tobacco manufacturers.

399. A 1959 TMSC report states that the main fields of research with which the committee is concerned are "1. Factors affecting smoking habits. 2. The chemical and physical properties of tobacco and tobacco smoke. 3. The principles of the smouldering process applicable to tobacco. 4. Biological activity of tobacco smoke. 5. Factors affecting the incidence of lung cancer and certain other diseases. 6. The physiological and psychological effects of human smoking."

400. In a February 21, 1962 memorandum to Mr. Daniels of Perkins, Daniels & Perkins, John C. Russell relayed that Dick Darrow reported that the TMSC in England planned to informally approach the Minister of Health and concede that tobacco was in some way implicated in the cancer problem.

401. The TMSC existed from its formation until 1963 when the Committee was renamed The Tobacco Research Committee ("TRC"); however, this research group maintained the same purpose and mission as its predecessor.

(ii) TRC

402. While TRC was a research council funded by the United Kingdom tobacco manufacturers, TRC was also well connected with tobacco research organizations throughout the world, including CTR. A TRC confidential document entitled "Tobacco Research Council Review of Research Activities, 1963-64" states that TRC "is in close touch with research being carried out in other parts of the world, and has particularly close working links with similar organizations in U.S.A. and Germany." An October 1964 TRC trip report confirmed that TRC representatives met with representatives of R.J. Reynolds, American, Brown & Williamson, Philip Morris, Liggett, Lorillard, CTR, the Tobacco Institute, and Hill & Knowlton, as well as with attorney Edwin Jacobs. At one of the meetings with Philip Morris, "[t]he informal agreement between TRC members not to make health claims" was explained.

(iii) TAC

403. According to a TRC letter from Clifford Jarrett, TRC Chairman, to D. Jones of BATCo, the Tobacco Research Council was re-named the Tobacco Advisory Council ("TAC")

on August 31, 1978. Jarrett explained that TAC would have an Executive Committee which would be in the top level of control over the research activities of the council. According to Jarrett, the membership of TAC would remain the same as the TRC, and "[a]ll outstanding commitments of TRC, to contractors and grantees, will be taken over and honoured in full by TAC."

404. The TAC continued the United Kingdom's tobacco industry's relationship with other tobacco industry organizations. For example, TAC met with VdC, JTI, and the Tobacco Institute in Washington, DC on March 18-19, 1987 to address public affairs concerns facing the tobacco industry regarding ETS issues.

405. At a November 16-17, 1983 meeting of tobacco research directors (attended by Dr. Manuel Bourlas, Vice Director of Philip Morris EEC Research & Development; Dr. Helmut Gaisch, President of Philip Morris-Europe science & technology; Dr. L.C.F. Blackman, a member of the BATCo board of directors and former BATCo head of research; and representatives from Imperial, Gallahers, and Rothmans), participants agreed to modify a TAC "Review of Research Activities" in response to "the eleventh hour intervention by BAT lawyers on many aspects of the galley proof of the publication [because of] the extreme sensitivity of many of the issues, and of the vital need to be safe rather than sorry." The participants agreed to replace summaries of the results of grantees' research – which the researchers had written – with "much shorter statements of results prepared by TAC and agreed by the grantees."

406. In 1983-84, TAC research directors discussed "the industry response" to the Independent Scientific Committee on Smoking and Health ("ISC") 3rd Report. Participants at these meetings included Dr. Helmut Gaisch, president of Philip Morris-Europe science &

technology; Dr. Manuel Bourlas, Vice Director of Philip Morris EEC Research & Development; Dr. L.C.F. Blackman, a member of the BATCo board of directors and former BATCo head of research; and representatives from Imperial, Gallahers, and Rothmans. Participants decided not to inform the ISC that there was "little scientific opportunity to identify and then selectively eliminate any specific components [of 'other noxa' found in the vapor phase of smoke] that could be unequivocally linked with the alleged smoking associated diseases" in part because "the Committee might press industry to undertake or fund research on 'the quality of tar,' ie on the specific biological activity of tobacco types and commercial products" – a "possibilit[y not] welcome to the industry." Each company prepared and exchanged draft position papers on one of "the six main areas of 'other noxa' identified by the ISC. . . . We agreed that the draft position papers should not be revealed to the ISC but that individual Research Directors would be responsible for introducing any discussion that arose on a particular subject."

407. According to an April 15, 1986 interoffice memorandum from Charles Green, scientist at R.J. Reynolds, to Alan Rodgman, another R.J. Reynolds scientist, on April 8, 1986 a "joint meeting of the ETS advisory groups from West Germany, the United Kingdom, and the United States as well as the INFOTAB Board of Directors" was held at the Tobacco Advisory Council's London office to discuss "scientific and public relations problems related to environmental tobacco smoke." The meeting included representatives from Philip Morris, BATCo, R.J. Reynolds, and the Tobacco Institute, and Imperial, Reemtsma, Rothmans, and the law firm of Shook, Hardy, and Bacon . Various research projects were discussed to be used by the attendees to address proposed regulations with respect to environmental tobacco smoke, including programs sponsored by the Tobacco Institute and the "cooperative [United States]

industry study to measure carbon monoxide, nicotine, and particulate matter in restaurants."

408. Andrew Foyle, a solicitor at Lovell, White & Durrant (later "Lovells"), outside counsel for BATCo, wrote to representatives of Imperial Tobacco, BATCo, Gallaher, and Rothmans International on July 6, 1993, with concerns about statements by the Tobacco Advisory Council on ETS. The letter indicated that there were "legal reasons why [TAC's spokesman Clive Turner] should exercise care in making statements. . . . There is a view that the Industry now finds itself in the same position in relation to ETS that it was thirty to forty years ago in relation to active smoking." "Statements made by the TAC should, therefore, be consistent with the positions adopted by the individual Companies. On scientific matters relating to ETS, a common position has been agreed to by all the Companies. . . . We will be contacting each of you shortly to see if you consider that there are any other legal reasons as to why the TAC needs to exercise care in making public statements."

I. Coordinated Smoking and Health Literature Collection and Retrieval

409. A shared objective of the members of the Enterprise has been to avoid liability findings that could result in both large damage awards and increased public recognition of the harmful effects of smoking. The Defendants collectively gathered, organized, stored, and eventually automated medical and scientific literature related to smoking and health research for this common purpose.

410. In 1964, indices of scientific literature for litigation purposes were being compiled by several industry sources, including the Defendants and their agents. Ed Jacob, attorney for CTR, R.J. Reynolds, and Brown & Williamson, employed a supervisor and three others abstracting and cataloguing current medical and scientific literature by subject and author for

litigation purposes. Henry Ramm, attorney for R.J. Reynolds, kept a similar but larger index, containing over 20,000 documents in eight volumes. In addition, Kenneth Austin and three other CTR staff members compiled indices of scientific literature for litigation purposes. Litigation indices were also kept by Janet Brown, attorney for American Tobacco and CTR, and Alexander Holtzman, attorney for Philip Morris.

411. In the mid-1960s, Lorillard stated in a report that "Because of the continued attacks on the industry . . . it is in the best interests of Lorillard to join forces with all other members of the industry concerning the health controversy." Although each cigarette company handled its own litigation through various trial attorneys, "there is a high degree of cooperation between the companies through . . . the Ad Hoc Committee which finds medical witness and prepares testimony. Lorillard's representative on this Committee is Mr. David Hardy. The Committee supervises the Central File which is a collection of every document which can be found relating to the smoking and health controversy. This cooperation must be continued. An adverse decision against any member of the industry would be disastrous to all."

412. In 1966, Covington & Burling contracted with International Information Incorporated, later known as Information Interscience Incorporated, also known as 3i, to provide confidential, automated litigation support services to the law firms representing cigarette manufacturers in products liability litigation.

413. In 1967, Ed Jacob was still requesting contributions from each of the companies for the expenses of the Central File, in the form of checks payable to Cabell Medinger Forsyth & Decker – Special Account No. 3.

414. According to a February 1969 Lorillard memorandum, beginning in about 1967,

the major tobacco companies with the exception of Lorillard joined together and established (either directly or through an independent data processing firm) an Information Center for the collection, summarizing, and computerization of all information and documents concerning smoking and health. The purpose of the information center was to have information readily available to the industry for litigation and congressional hearings. As the information center expanded, it was thought that the industry's Central File and much of the library maintained by CTR could be eliminated. The Central File was started in the late 1950s, supported financially by all members of the industry, and supervised by the Ad Hoc Committee (smoking and health attorneys representing each company). It was under the direct supervision of attorney Ed Jacob and was a collection of every document which could be found relating to the smoking and health controversy.

415. In December 1970, Hardy wrote that it was "impossible for anyone at this stage of the game to be exact as to any savings by the consolidation of library functions. It is presently contemplated that the retrieval system will be a special project and division of CTR and as such would be under the jurisdiction of Henry Ramm after he assumes his new responsibilities [as CTR Chairman and President]. Hardy thought that "the consolidation of libraries of Central File, CTR, etc. would result in greater efficiency and less total expense."

416. A 1971 memo describes the Central File as an information gathering and library service conducted by and for the tobacco industry: "Established in 1958 in connection with the defense by cigarette manufacturers of health litigation (cases alleging cancer and other diseases contracted from cigarette smoking), the Central File is a continuing collection and maintenance of documents and information relating to the smoking and health controversy. It is a work tool

and source of information for the tobacco companies and their counsel in conjunction with litigation, and in recent years has also been utilized in connection with the industry's preparation of materials for response to Government and private reports with respect to smoking and health, as well as for the preparation of testimony and documents given before and submitted to Congressional committees and regulatory agencies. The financial support of the Central File is borne equally by the six major cigarette manufacturers."

417. In 1971, the operations of a company called 3i (Information Interscience Incorporated) were transferred to CTR. At the first meeting of CTR's Board of Directors (after CTR had incorporated in 1971), the Board gave approval to CTR to take over, and operate as a special project, an information and retrieval system and to computerize medical literature, articles, and other published documents relating to tobacco and health, the expenses to be borne by the participating companies. At the first annual meeting of CTR members after incorporation, the members approved the name Information Systems for this special project. Information Systems became a division of CTR performing the function of analyzing, summarizing, indexing and retrieving scientific and medical literature at the direction of litigators. The Defendants relied on this division of CTR to review the medical literature relating to smoking and health even though they continued to monitor the literature in-house.

418. According to the Report of the Chairman to the [Second] Annual Meeting of [CTR] Members held on January 28, 1972, the name of the operation had been changed to Information Retrieval Division. The division was staffed by a group of twenty-six people and financed separately from the general budget; its name was eventually changed to the Literature Retrieval Division ("LRD").

419. CTR maintained a separate checking account called CTR Special Account No. 1 for the Literature Retrieval Division. CTR requested, received, and deposited monies from its sponsor companies for the Literature Retrieval Division.

420. A January 1975 memo identified the Jacob Medinger account labeled Account #3 as the Central File, a library available to company and litigating counsel and run under the direction of a staff who analyzed scientific articles in the area of smoking and health for counsel. It was also called the Tobacco Litigation File. Because Account #3 was considered lawyers' work product not subject to subpoena, it was separated from Account #4 which was utilized to obtain the services of doctors and scientists who could be available for Congressional hearings and litigation. Frederick Haas, attorney for Defendant Liggett, felt that the work done from funds generated from both accounts had been "extremely important in defending lung cancer and related cases."

421. Informal and formal reviews of the Literature Retrieval Division operations were undertaken in 1975. The formal review was prepared by Frank Colby, R.J. Reynolds' Director of Scientific Affairs; Fred Giller, Director of CTR's Literature Retrieval Division; and Mr. Benbow, an R.J. Reynolds employee. The formal review report opined that "[t]he quality of the abstracting and indexing has improved substantially since the 3i [Information Interscience Incorporated] and O'Shea eras, especially since the abstracts have been structured . . . the quality of the abstracting and indexing is much better than that provided by any information service in the public domain." The formal review of LRD also recommended that Frank Colby continue to make available to LRD the results of his scanning and selection from approximately twenty primary journals and a few secondary sources.

422. The informal review was done by Lorillard's Research Director Alexander Spears and covered methods of handling the literature and the computer process. The data source for the LRD system consisted of approximately 400 medically-oriented journals, ten abstracting publications, and various United States Government publications. The number of entries in the system was approximately 75,000. Computer searches (by author, journal, year, title, author affiliations, accession number, category of document, or key word descriptors) of the articles stored in the data bank could be reported as either a list of accession numbers of documents or as a full report of all information stored in the data bank for each document. However, the abstract of the article was not stored in the data bank and did not appear in the full report. The final stage of a search required pulling aperture cards on which appeared a printed abstract of the article and/or pulling the microfilm of an article.

423. Alexander Spears' informal review report described the LRD operation as "nearly complete coverage of the world medical literature on tobacco and health available at each user location with essentially state of art information search and retrieval capability." According to Spears, the LRD system would serve relatively little purpose to Lorillard "except in the area of tobacco and health related to litigation and governmental regulatory proceedings," but he would support a decision by Lorillard to fund the LRD "since it seems an integral part of defending the industry and this company in the defined area." Lorillard eventually did fund the LRD from 1980 through 1983.

424. In September 1981, the Ad Hoc Committee (William Shinn and Robert Northrip from Shook, Hardy & Bacon; Francis Decker, Jr. from Webster & Sheffield; Ed Jacob and Timothy Finnegan from Jacob, Medinger & Finnegan; and Janet Brown and Thomas Bezanson

from Chadbourne, Parke, Whiteside & Wolff) met and discussed a proposal to sever LRD from CTR and reorganize it, along with the Tobacco Litigation File, as a corporation providing litigation support services to counsel defending smoking and health actions. In order to provide work product protection for LRD's microfilmed, computerized database (and abstracts) on smoking and health information, it would be removed to the custody of defense counsel. LRD would be removed from CTR and combined with the Tobacco Litigation File in a business corporation to be formed called LS, Inc., the stock of which would be owned by the four law firms. Payments to LS, Inc. by the law firms would be on a per client market share basis for all functions. The only users of the system would be the four law firms plus Covington & Burling, representing the Tobacco Institute which had been sued in California. The only use of the system would be for litigation, which would be defined to include administrative proceedings and legislative hearings in which proceedings and hearings the law firms were representing their clients. Any use by tobacco company counsel would be confined to litigation support usage. The president and CEO of LS, Inc. would be Dr. Fred Giller, Director of CTR's LRD at the time.

425. The organization and incorporation of LS, Inc. (Legal Services Corporation for Cigarette Industry Litigation Support) and its removal from LRD was the subject of extensive study, review, and evaluation for a considerable period of time in the early 1980s. In March 1983, the Committee of Counsel approved the implementation and incorporation of LS, Inc. On November 9, 1983, CTR drew a check for the \$4,739.60 remaining in CTR Special Account No. 1 at Citibank, closed the account, and transferred the monies to LS, Inc.

426. According to a 1998 brochure, LS, Inc. is a lawyers' assistance corporation that provides litigation support services to certain law firms engaged in the defense of tobacco project

libility lawsuits. LS, Inc. or its predecessor organizations have provided litigation support services since 1966. The Board of Directors was comprised of representatives from Chadbourne & Parke, attorneys for Defendants American Tobacco and Brown & Williamson; Shook Hardy & Bacon, attorneys for Defendants Lorillard and Philip Morris; and Jones Day Reavis & Pogue, attorneys for R.J. Reynolds.

J. Gentlemen's Agreement

427. Defendants also used less formal mechanisms to organize the affairs of the Enterprise. As a means to further the aims of the Enterprise, and contrary to their repeated promises to protect the public health by conducting unbiased research related to smoking and health, the Cigarette Company Defendants adhered to a "gentlemen's agreement" -- so called by Defendants themselves -- not to perform or commission in-house biological research on smoking and health. See also Section IV.G. below.

428. The two components to this "gentlemen's agreement" were: (1) any company discovering an innovation permitting the manufacture of an essentially "safe" cigarette would share the discovery with others in the industry; and (2) no domestic company would use intact animals in in-house biomedical research.

429. The Cigarette Company Defendants' mutual commitment to share discovery of a "safe" cigarette with all other cigarette companies -- the "gentlemen's agreement" -- substantially reduced, by design, the financial incentive any cigarette company might otherwise have had to develop and market a safer product. As Frank Colby of R.J. Reynolds wrote in 1981: "There is a clear-cut agreement among all U.S. cigarette manufacturers that any scientific discovery made within the companies, or otherwise sponsored by a single company, which might have a positive

impact on the smoking and health controversy, would have to be freely shared, without any costs to the other manufacturers. There would, therefore, be no incentive for R.J. Reynolds to sponsor the Cohen project [removal of oxidants from tobacco mainstream smoke]. This applies to any other product development oriented research by a medical institution to be sponsored by a United States tobacco company."

430. Although the Cigarette Company Defendants recognized that research and testing were essential to evaluating the health risk posed by their products, in-house scientists who urged their companies to develop safer products and compete on health grounds were often ignored or silenced. In 1964, Philip Morris's Vice President of Research Helmut Wakeham urged Philip Morris to gain a competitive advantage by increasing in-house research on smoking and health issues and by breaking up "the common front approach of the industry through TI and TIRC." Wakeham acknowledged the legal jeopardy inherent in Defendants' joint agreement by recommending that "[t]he industry should abandon its past reticence with respect to medical research. Indeed, failure to do such research could give rise to negligence charges. . . . Individual companies must also do their own research if they expect to develop proprietary positions for the health competition."

431. Defendant American Tobacco long adhered to this shared policy not to do in-house biological research. In 1965 William Harlan, Director of Research and Development for American Tobacco, and Edward Harlow, Assistant Director of Research and Development for American Tobacco, proposed initiation of a Biological Research Program for Defendant American Tobacco. Since the 1930s, American Tobacco had performed no biological research on animals in its own laboratories.

432. An August 25, 1965 American document explained the "fundamental problems a program of the nature indicated . . . would pose for the Company in its public, medical and legal positions in the health controversy." The author claimed that any undertaking by American Tobacco of a biological research program would be an assertion of competence to conduct such research and "[s]uch a position is fundamentally in conflict with the Company's past policy and position respecting its proper function in scientific research regarding tobacco products . . . the most serious consequences appear to [be] the degree to which the Company thereby undermines and perhaps even negates its legal position respecting the 'reasonableness' of its past conduct of scientific research (including not doing such 'biological' research)."

433. American's past position and policy was one of "supporting work by independent men in independent institutions while itself pursuing the study of smoke and tobacco, its own field of special competence," essentially the same "policy hitherto enunciated in the law suits by other members of the industry [and] no jury has yet found any member of the industry negligent in pursuing such a policy with respect to biological research." The author noted that American's sponsorship of independent investigators and institutions who chose to conduct animal experiments "carries no necessary admission in and of itself that the Company considers such research significant in terms of human health."

434. The author also contended that "[w]hen the Company asserts competence to conduct its own biological research into certain aspects of human health it opens for jury evaluation the question whether it acted reasonably in not instituting biological research long before." If a "reasonably prudent manufacturer capable of conducting biological research would not have instituted biological testing programs in the 1920,s, or 1930's or 1940's . . . it should at

least have been begun in 1950-1953, with publication of the four retrospective studies showing association with lung and other cancers; or in 1953, with publication of the Wynder mouse-painting experiments, or in 1954, with publication of the first Hammond-Horn report, or in 1957, with publication of the Study Group report on Smoking and Health . . . or in 1958, with publication of the final Hammond-Horn report, or in 1959, with the publication by the Surgeon General of an official statement pronouncing a causal link between smoking and certain diseases, or in 1962, with publication of the report of the Royal College of Physicians, or [in 1964], with publication of the Report of the Surgeon General's Advisory Committee."

435. The document concluded that that in-house animal research could not be initiated by American because it "would make the Company's past and current position in the health field 'untenable'" and "while the program was important and [Harlow] wanted very much to do it, he would certainly not want to do anything that 'has an impact on the Company's position or if it makes that position any less sound than it now is.'"

436. Helmut Wakeham, Director of Research for Philip Morris, believed that Defendants American, Liggett, Lorillard, and Brown & Williamson were performing limited in-house biological research in violation of the "gentlemen's agreement." In a 1968 memorandum, Wakeham wrote that "[w]e have reason to believe that while this proposal to carry out biological research and testing may seem a radical departure from previous policy and practice, we are in fact only advocating that which our competitors are also doing."

437. A September 1970 memorandum by David Geoff Felton, a BATCo scientist, concerning a meeting between BATCo personnel and Wakeham, reported that

One result of the greater influence which Wakeham [Vice President and Director of Research at Philip Morris] has with Mr.

J[oseph] Cullman [President of Philip Morris] has been the agreement, albeit reluctant, to permit Philip Morris to do 'in-house' biological work. When this was first mooted, Wakeham was told that there was a tacit agreement between the heads of the US Companies that this would not be done. Wakeham had countered by saying he knew that Reynolds, Lorillard and American were all undertaking some and that Liggett and Myers had never been party to the agreement. Cullman had been incredulous and had phoned Galloway, the President of R.J. Reynolds, who had denied Reynolds were doing any bioassay. When Cullman had told Wakeham this, Wakeham's response had been to quote the work on the Senkus smoking machine and to claim that he had floor plans showing outline area allocations. This too had been relayed to Galloway by Cullman, incredible though it may seem, and Galloway had visited the Reynolds Research Dept. to find it was substantially true. There had been a sudden reorganization at Reynolds, resulting in the closure of the biological section, the severance of product development (which remained with the tobacco division) from the research department. . . .

438. According to a 1980 Philip Morris memorandum on the nicotine receptor program, Philip Morris continued to claim adherence to the gentlemen's agreement – "the original carte blanche avoidance of all biological research" – because the legal strategy successfully employed by the tobacco industry over the years in defending deceased smoker lawsuits had been that "[w]e within the industry are ignorant of any relationship between smoking and disease. Within our laboratories no work is being conducted on biological systems."

439. A 1981 R.J. Reynolds memorandum stated that information had been obtained that "PM does not live up to the alleged 'gentlemen's agreement' of not having animal laboratory facilities on their premises in this country. Philip Morris indeed has had such facilities for at least 3-4 years and continues to operate them."

K. Suppression and Concealment of Information; Destruction of Documents

(1) Introduction

440. From at least 1954 to the present, Defendants engaged in parallel efforts to destroy and conceal documents and information in furtherance of the Enterprise's goals of (1) avoiding or, at a minimum, limiting liability for smoking and health related claims in litigation; (2) avoiding statutory and regulatory limitations on the cigarette industry, including limitations on advertising; (3) preventing the public from learning the truth about smoking's adverse impact on health; and (4) preventing the public from learning the truth about the addictiveness of nicotine. These activities occurred despite the promises of the Cigarette Company Defendants that (a) they did not conceal, suppress or destroy evidence, and that (b) they shared all pertinent research findings with the American people.

(a) Ongoing Litigation

441. Litigation involving the Cigarette Company Defendants began in March, 1954 when the smoking and health lawsuit, Lowe v. R.J. Reynolds, et.al., Docket No. 9673 (E.D. Mo. Mar. 10, 1954) was filed.

442. In 1964, the first smoking and health lawsuit involving CTR and the Tobacco Institute as co-defendants, Fine v. Philip Morris Inc., et.al., (M.D. Pa. Feb. 3, 1964), was filed.

443. Since 1954, smoking and health litigation has been pending continuously against one or more of the Defendants. Such litigation has raised recurring factual and legal issues common to Defendants, including allegations of injury from smoking and the use of false statements in cigarette advertising, among others. The lawsuits and the dates are set forth in Appendix Table F.

(b) Statutory and Regulatory Oversight

444. In the 1950s, regulatory activities (apart from continuing antitrust scrutiny) affecting the cigarette industry as a whole began to accelerate and have continued to the present on federal, state, local and international levels. These activities have involved a wide variety of federal regulatory agencies including the Federal Trade Commission ("FTC"), the Federal Communications Commission ("FCC"), the Food and Drug Administration ("FDA"), the Civil Aeronautics Board ("CAB"), and the Environmental Protection Agency ("EPA"), among others. The activities have covered a wide range of issues, including cigarette advertising; placement and use of health warning notices on cigarette packages and in cigarette advertising; placement and use of tar and nicotine yields on cigarette packages and in cigarette advertising; testing of cigarettes for tar, nicotine and carbon monoxide yields; excise taxes; reporting of ingredients used in cigarette manufacturing; restriction and prohibition of smoking aboard commercial aircraft, interstate buses and interstate trains; and smoking in public places, among others.

445. Legislative activities on the federal level affecting Defendants began in at least 1957 with the "Blatnik hearings," which addressed the disclosure of tar and nicotine yields in advertising and raised issues of common interest to Defendants. Representatives of Defendants have attended and testified at hearings regarding a wide variety of proposed and existing legislation.

(2) Document Destruction and Concealment

446. In the 1980s as the tobacco companies prepared to disclose internal documents for the first time in Cipollone v. Liggett, et al., Docket No. 83-CV-2864 (D.N.J.), a subcommittee of litigation lawyers from the law firms of Arnold & Porter and Shook, Hardy & Bacon – who combined have represented Tobacco Institute, Philip Morris, Lorillard, R.J. Reynolds, and Brown

& Williamson (see Section I.B. above) and have acted on behalf of all Defendants – met to discuss the import of the documents that might be released to the public. The lawyers realized that the documents would disclose that the Cigarette Company Defendants employed document destruction programs used to prevent production of adverse documents to potential plaintiffs. As such, as they prepared to produce documents, the Defendants' lawyers drafted anticipated press inquiries such as "Is it true that formal document destruction programs were instituted to cover up potentially damaging information?"

447. Defendants R.J. Reynolds, Philip Morris, BATCo, Brown & Williamson, Liggett, Lorillard, and CTR destroyed and concealed evidence to further the goals of the Enterprise to limit liability in lawsuits, to avoid statutory and regulatory limitations, and to further the scheme to defraud by suppressing evidence of the truth about the adverse health effects of smoking and its addictiveness.

(a) R.J. Reynolds

448. Defendant R.J. Reynolds destroyed documents, including scientific research documents, to prevent the disclosure of documents which it believed would likely be sought in litigation and in federal regulatory proceedings and would provide information to the public on the adverse impact of smoking on health.

449. While federal litigation was anticipated and, in fact, pending against R.J. Reynolds, company representatives destroyed on October 17, 1968 numerous Special Reports written by Alan Rodgman, one of R.J. Reynolds's chief scientists. Most of these documents concerned smoking and cancer causation, the very subject of the pending litigation.

450. In 1969, R.J. Reynolds's research department confirmed to the legal department

that it would destroy documents to protect the company's position in smoking and health litigation. The research department indicated that it did "not foresee any difficulty in the event a decision is reached to remove certain reports from Research files. Once it becomes clear that such action is necessary for the successful defense of our present and future suits, we will promptly remove all such reports from our files As an alternative to invalidation, we can have the authors rewrite those sections of the reports which appear objectionable."

451. In 1991, at the same time or shortly before the FTC initiated proceedings against R.J. Reynolds's Joe Camel advertising campaign, R.J. Reynolds persuaded employees of the advertising agency of Young & Rubicam to destroy documents concerning the Joe Camel advertising campaign with the intent to prevent the documents from being available for use in the FTC's proceedings. This plan was confirmed in a November 1, 1991 facsimile cover sheet and letter sent from Young & Rubicam to R.J. Reynolds stating "[a]s we discussed . . . [t]his is what I'm going to destroy. . . . Also, under our current scrutiny, a wise move to rid ourselves of developmental work!!" The letter set forth a list of documents related to the Joe Camel campaign which were destroyed.

(b) Philip Morris

452. Defendant Philip Morris concealed documents, including scientific research documents, by secreting the documents at a foreign affiliate in order to prevent the disclosure of documents which it believed would likely be sought in litigation and in federal regulatory proceedings, and would provide information to the public on the adverse impact of smoking on health.

453. In 1970, Helmut Wakeham, Philip Morris's Vice President for Research &

Development, recommended that Philip Morris purchase INBIFO, a research facility in Cologne Germany, arguing that Germany, "is a locale where we might do some of the things which we are reluctant to do in this country."

454. Philip Morris did in fact purchase INBIFO to conduct its smoking and health research. A 1970 memorandum from Joseph Cullman, President of Philip Morris, discusses the benefits of conducting research overseas:

The possibility of getting answers to certain problems on a contractual basis in Europe appeals to me and I feel presents an opportunity that is relatively lacking in risk and unattractive repercussions in this country.

455. One perceived value of INBIFO was that Philip Morris could control the results: "Experiments can be terminated at will as required without delay."

456. After acquiring INBIFO, Philip Morris tried to avoid any direct contact with the research results that emanated from this research facility. To prevent documents housed at INBIFO from being produced in litigation in the United States, Philip Morris attempted to eliminate written contact between INBIFO and Philip Morris in the United States. Handwritten notes of Thomas Osdene, a senior Philip Morris research official who acted as a primary conduit for information from INBIFO, laid out the method for handling documents related to health and smoking, going as far as to direct that sensitive information be sent to his home where he would review and destroy it. His notes state as follows:

- (1) Ship all documents to Cologne . . .
- (2) Keep in Cologne.
- (3) OK to phone & telex (these will be destroyed).
- (4) Please make available file cabinet. Jim will put into shape by

end of August or beginning of Sept.

(5) We will monitor in person every 2-3 months.

(6) If important letters have to be sent please send to home – I will act on them and destroy .

457. The "Jim" referenced in the above document was James Charles, another Philip Morris scientist. In sworn testimony on May 14, 1997, in State of Minnesota v. Philip Morris, No. CI-94-8565 (Dist. Ct. 2d Judicial Dist.), Charles has confirmed that Philip Morris received, but did not retain INBIFO research results in its files.

Q. Philip Morris didn't retain its own study—retain its own copies of the INBIFO studies?

A. Philip Morris U.S.A. would receive from INBIFO reports of work they conducted for us at our direction. We - - we gave them guidance with what - - respect to what kind of a study we wanted hem to do. They conducted the studies. They would send us the results. We evaluated the results and return the document to INBIFO.

Q. Wouldn't it have been easier to just simply keep the documents in a file cabinet in an office - - in a room in Richmond, Virginia, instead of sending them back to Cologne?

A. Yes, it probably would have been easier.

Q. Did you ever express that to anyone?

A. I don't remember.

458. In 1977, in a letter to Max Hausermann, a Philip Morris Research & Development Vice President in Switzerland, Robert Seligman, a Philip Morris Vice President of Research & Development in the United States, confirmed Philip Morris's company policy of prohibiting direct contact between INBIFO and Philip Morris in the United States. Seligman wrote:

We have gone to great pains to eliminate any written contact with INBIFO and I would like to maintain that structure.

...

Therefore, I am advising Jerry Osmalov to continue sending samples to Neuchatel for transshipment to INBIFO. If this

procedure is unacceptable to you, perhaps we should consider a "dummy" mailing address in Koln for the receipt of samples. The written analytical data will still have to be routed through FTR if we are to avoid direct contact with INBIFO and Philip Morris U.S.A.

459. In State of Minnesota v. Philip Morris, et al., Court Files No. C1-94-8565 (Dist. Ct. 2nd Judicial Dist.), Judge Fitzpatrick ruled that these unusual arrangements for handling scientific research at INBIFO had an effect in thwarting the discovery proceedings in that case. The judge concluded that Philip Morris's failure to search the files of Philip Morris International, Inc. and other subsidiaries (which included INBIFO) was "an egregious attempt to hide information relevant to this action" Judge Fitzpatrick further stated that Philip Morris's "attempts at hiding documents in the morass of interlocking related organizations shall not be tolerated by this court."

460. As recently as 1993, Philip Morris maintained a system whereby research documents are "sent to Richmond for a review and are then returned to INBIFO" with all "[s]upporting data and documents . . . kept at INBIFO."

461. In 1991, Philip Morris further attempted to prevent the creation of any documentation that could be adverse to any position they took in litigation. Matthew Winokur, Philip Morris's Director of Regulatory Affairs, complained to Charles Wall, a Philip Morris Companies in-house attorney, that tobacco industry "people in the U.K. companies put too much on paper and then copy too many people." He suggested that Wall raise this issue at the International Committee of Counsel and "reiterate the need for prudent document creation and retention procedures among all the companies." Wall responded by confirming that he would raise the issue of document creation and retention at the next meeting, apparently in an attempt to

convince the foreign corporations to alter their ways.

462. Philip Morris also contemplated the destruction of documents, including scientific research documents, to prevent their disclosure. Because of the sensitive nature of document destruction or concealment, those authoring company documents limited the number of copies of memoranda contemplating destruction or concealment, thereby enhancing Defendants' ability to destroy any incriminating evidence of the destruction plans.

463. Philip Morris routinely limited the number and circulation of documents containing harmful information so they could be easily destroyed if necessary. In 1970, William Dunn, Philip Morris Principal Scientist, wrote to Thomas Osdene, Director of Research for Philip Morris, indicating that he had approved research by a subordinate named Carolyn Levy.

Dunn wrote:

I have given Carolyn approval to proceed with this study. If she is able to demonstrate, as she anticipates, no withdrawal effect of nicotine, we will want to pursue this avenue with some vigor. If, however, the results with nicotine are similar to those gotten with morphine and caffeine, we will want to bury it. Accordingly, there are only two copies of this memo, the one attached and the original which I have (emphasis added).

464. In 1977, Robert Seligman, a Vice President of Research & Development, wrote to Max Hausermann, another Research & Development Vice President in Switzerland, describing a company process for the exchange of information between INBIFO, Philip Morris's research center in Cologne, Germany, and Philip Morris that would hide any direct contact between INBIFO and Philip Morris. Related to a letter that breached that policy, Seligman suggested to Hausermann that he "retrieve [and presumably destroy] the March 24 letter Helmut Gaisch sent to Jerry, including all copies. My copy is returned herewith."

465. As explained at a Committee of Counsel meeting in 1981 by Robert Northrip, a Shook, Hardy & Bacon attorney who represented Philip Morris, lawyers' special project funding was used to allow adverse research findings to be hidden from the public. A 1981 document shows Kendrick Wells, Assistant General Counsel for Defendant Brown & Williamson, quoting Northrip as having said: "[i]f company testing began to show adverse results pertaining to a particular additive, the company control would enable the company to terminate the research, remove the additive, and destroy the data."

(c) The BAT Group: BATCo and Brown & Williamson

466. BAT Industries was the parent company of Defendant Brown & Williamson in the United States and Defendant BATCo in the United Kingdom throughout the 1980s and most of the 1990s. BATCo is the former parent of Brown & Williamson and is now a sister corporation. BATUS is also a former parent company of Brown & Williamson. These companies along with numerous other operating companies owned by BAT Industries operated together to prevent documents from being discovered in litigation in the United States and in federal regulatory proceedings, and from being disclosed to the American public.

(i) Document Destruction

467. Defendants BATCo and Brown & Williamson established and implemented policies for the destruction of documents, including scientific research documents, to prevent the disclosure of documents which they believed would likely be sought in litigation and in federal regulatory proceedings and would provide information to the public on the adverse impact of

smoking on health.

468. On May 15, 1986, at a meeting at its research facility in Millbank, England, BATCo legal personnel instructed the leadership of the Group Research & Development Center ("GR&DC") to dispose of documents under the rubric of "spring cleaning" before the GR&DC files were copied for possible production in health and smoking litigation in the United States.

469. In 1986, BATUS (immediate parent company of Brown & Williamson) General Counsel David Schechter understood that one of the purposes behind BATCo's document management policies was the concern that documents would end up in the hands of a plaintiff.

470. In January, 1990, at a meeting of representatives from various BAT Group components, including Brown & Williamson and BATCo, the participants were encouraged to establish document retention policies that would purge company files of any documents not currently subject to a document request in ongoing litigation. Each company was expected to "[t]ighten the document retention policy . . . to the extent permitted by current litigation/discovery requests."

471. In the early 1990's, Schechter was directed by Stuart Chalfen, the General Counsel of BAT Industries, the then-ultimate parent company of Brown & Williamson and BATCo, to devise a BATCo document management program and train BATCo operating company "record managers" to implement the policy. During his deposition in this action, Schechter admitted that, pursuant to the policy, numerous categories of documents, including documents related to research and development, were discarded by BATCo. When asked about the benefits of such destruction, as well as the "mental copy rule" which was designed to limit the generation of documents as much as possible, Schechter revealed the true intent of the policy:

Q. And one of the benefits of limiting such retention was that documents would not fall into the hands of plaintiffs or the public or the newspapers, right?

MR. KOTELLY: Objection.

MR. NYHAN: Objection.

A. That was the -- that was the purpose of both the mental copy rule and the program as a whole.

472. Schechter believed that Imperial Tobacco Limited (Brown & Williamson's sister company in Canada) destroyed scientific documents in part to protect Brown & Williamson in litigation.

(ii) Keeping Documents Out of the United States

473. BATCO and Brown & Williamson, with the assistance of other BAT Group companies, concealed documents, including scientific research documents, by secreting documents outside the United States at foreign affiliates to prevent the disclosure of the documents which they believed would likely be sought in the United States in litigation and in federal regulatory proceedings, and would provide information to the public on the adverse impact of smoking on health.

474. Many BAT Group document management policies were motivated by a concern that BAT Group research might be attributed to Brown & Williamson. As early as 1970, attorneys at Shook, Hardy & Bacon wrote a seven page letter to Brown & Williamson's general counsel expressing concern that BAT Group research documents would be subject to discovery under the 1970 amendments to Rule 26, and that these documents "would be damaging to defendant's position in a smoking and health case." Also, in February 1985, BAT Industries directed BATUS general counsel David Schechter to investigate the "attribution issue." Late

that month, Brown & Williamson and BATCo's outside counsel at Simpson, Thatcher & Bartlett explored at length the legal bases by which BAT Group research could be discovered in litigation in the United States against Brown & Williamson, and by which knowledge of such research could be attributed to Brown & Williamson. Thereafter, Schechter asked the New York law firm Paul Weiss to "consider hypothetically whether documents in the possession of B.A.T. Industries or its United Kingdom subsidiary, BATCo, could be discovered by a plaintiff in a lawsuit in the United States against Brown & Williamson."

475. As a result, in 1985 Brown & Williamson Associate General Counsel J.Kendrick. Wells directed members of the Research & Development Center to collect certain documents he had identified on an attached list relating to the behavioral and biological studies area for shipment to BATCo once all such documents had been gathered. Wells directed Earl Kohnhorst, Vice President of Research, Development and Engineering, to tell the research personnel that the removal of the documents "was part of an effort to remove deadwood from the files and that neither he nor anyone else in the department should make notes, memos, or lists." The documents included the Janus studies, a secret program of biological research on the effects of smoking which showed tumor growth in animals.

476. In 1986, Brown & Williamson established procedures to limit records relating to health and science research conducted by its sister companies from entering the country despite the fact that the BAT Group operating companies, including Defendants Brown & Williamson and BATCo, were part of a cost-sharing agreement that funded the research. The established policy limited the documentation sent to the United States to "concise reports, estimated to be about one-half page in length, twice each year. . . . [T]he brevity of the reports will reduce the

potential for receipt by B&W of information useful to a plaintiff. . . ." This memorandum indicated that the Brown & Williamson lawyers did a detailed analysis of each of the projects and ultimately either approved or disapproved of receipt of information related to each project. Whenever the lawyers feared that the project might result in information that may be "helpful to plaintiffs" they either dissuaded or precluded Research, Development & Engineering from receiving information related to that project.

477. Brown & Williamson with the assistance of BATCo and the BAT Group began an elaborate plan of document management and control to prevent adverse scientific documents from coming to this country or to otherwise control the documents so as to prevent discovery of the documents in ongoing litigation. First, the companies used the law firm of Lovell, White and King and Kay Comer (later Kinnard), a long-time BATCo addiction scientist, to catalogue BAT Group smoking and health documents located at BATCo's Southampton, England research and development facility. Then, beginning in the late 1980s, BAT Group added a series of document management policies in response to the concerns that BAT Group research might be used in litigation against BAT or Brown & Williamson in the United States.

478. In January 1990, representatives from various BAT Group components, including Brown & Williamson and BATCo, held a meeting in which the policy against widespread distribution of scientific records was reiterated. Issues discussed at the meeting included:

1. Identification of documents currently sent offshore by Group companies with research centers.
...
2. Identification of each company's 'research mission.'
Should this be defined by reference to its current research programme? How can this be defined to include research material from overseas which is useful and uncontroversial whilst excluding material which is irrelevant to the receiving company's research

activity and may have health sensitivity.

The need for limited distribution was driven by document discovery and the "[d]ifficulties faced by the author company in explaining documents in a foreign court" The BAT Group companies' cost-sharing agreements were also to be re-written to "recognize such company's claim to ownership/confidentiality of its research reports and which provides for return of all copies of these documents upon demand" (emphasis added).

479. In 1992, while Brown & Williamson was a party to a BAT Group cost-sharing agreement that funded BAT Group research, Brown & Williamson telegraphed to other BAT Group companies that it did not want to receive any research documentation that might be damaging in ongoing litigation. Brown & Williamson only accepted scientific research documents from other BAT Group companies "to the extent [it was] able to do so consistent with the status of pending litigation in the United States."

480. In 1994 and 1995, at the direction of Brown & Williamson CEO Tommy Sandefur, Brown & Williamson again directed BATCo and other BAT Group companies not to send documents to Brown & Williamson so that Brown & Williamson could avoid being called upon to explain the documents in court, in Congressional testimony, or otherwise. In a September 15, 1994 memorandum summarizing a meeting of the BAT Group research heads in Rio de Janeiro, Graham Read, head of BATCo research, recorded that "B&W have instructed Group members not to undertake written communication with them until further notice. Alternative communication vehicles are being considered." When asked about this instruction in his deposition in this case, Read explained as follows:

Q. Who instructed the group members on behalf of B&W?

Mr. Browdy: Objection.

A. Well, it's clearly with the summary points that I created, as a consequence it could only have come from Tilford Real [sic] who's the only member of B&W to the best of my knowledge who was in attendance at this meeting, the head of R&D for B&W at that time.
...

Q. In what context did he give this instruction?

Mr. Browdy: Objection.

A. Again, my best recall, Tilford was an excellent scientist, and certainly was not giving legal opinion, it would have been somewhere in the consideration of production of documents into some litigation, and simply suggesting here that a written communication would fall into that category but still requiring to find some means of communication such that they are kept informed of group activities. That's the best guess I can overlay on that (emphasis added).

481. This policy of not sending research documents to Brown & Williamson was confirmed by Brown & Williamson research librarian and document custodian Carol Lincoln who explained that Brown & Williamson CEO Tommy Sandefur created the policy to prevent having to explain adverse documents in litigation. In her deposition testimony in this action, Lincoln testified as follows:

Q. To your knowledge, did Brown & Williamson during the 1980s ever request other British American Tobacco companies not to send copies of final reports to the library?

A. Not during the '80s, no.

Q. More recently?

A. During the '90s, yes.

Q. When was that?

A. '94, '95, I believe.

Q. Do you know the reason for that?

A. I have been told a reason.

Q. What is that?

A. That Tommy Sandifer [sic] was in court being grilled over these documents, hundreds of documents, that he had never seen. You know, he couldn't be expected to see all of them, but here he's trying to explain these documents he's never seen. And so he said, "all right, then we won't receive them." So, you know, our – we were – the companies apparently were told not to send those things to us for a couple of years. And after he died and, you know, the CEO changed, that changed, too, and we asked Brown & – or BAT for the ones we were missing. As far as I know, we got them.

482. Brown & Williamson employee Larry Herzberg explained, during his deposition in this action, that the policy of BAT Group companies not transmitting documents to Brown & Williamson in 1994 and 1995 came from the very top of the company from then Brown & Williamson CEO Tommy Sandefur. Herzberg further stated that senior Brown & Williamson scientist Hugh Honeycut was also involved in developing and disseminating the policy "directive" set by Sandefur. With respect to whether Brown & Williamson was "aware of any instances where scientists from B&W have instructed individuals at other BAT Group companies not to transport research and development related documents to [B&W]," Herzberg testified that:

A. . . . I know of one situation where that was the case. I believe it was in mid to late 1994. Hugh Honeycut communicated to – I believe it's a Richard Baker at BATCo to discontinue sending research reports. And my understanding of that is that near or around that time it was a situation where Brown & Williamson documents had been made public. Specifically – I actually asked him about this specifically. [] And the decision was taken to not bring documents in from other BAT companies for a period of time with concerns about what was being disclosed and how it may jeopardize the company's position. That continued through '95, and then ultimately the company began receiving research reports again.[]

Q. By your statement "jeopardize the company's position," do you mean with respect to smoking and health litigation?

A. You know, different positions. It could have been competitive position; it could have been public relations position if documents weren't worded in a manner consistent with – English is different in the U.S. and, you know, people in their sort of interpretation of things are different. I don't know that I had any specific – it could have been litigation. It could have been public relations. It could have been competitive.

(iii) Intentional Discovery Avoidance and Delay

483. Defendants BATCo and Brown & Williamson, jointly and individually, concealed documents, including scientific research documents, by establishing company policies of avoidance and delay of production of documents to prevent the disclosure of documents that they believed would likely be sought in litigation and in federal regulatory proceedings, and would provide information to the public on the adverse impact of smoking on health.

484. BATCo's practice of delaying production of documents is contained in a September 1985 memorandum to the BATCo Chairman E.A.A. Bruell, from Nick Cannar, BATCo Solicitor [the equivalent of the General Counsel]. In this memorandum, Cannar contemplated the delay of production of scientific documents through the use of "UK legal procedures" despite the fact that he had determined that the documents were discoverable.

485. BATCo's practice of delaying production of scientific documents was further developed in May 1986. As BATCo was becoming increasingly involved in health and smoking litigation in the United States, BATCo in-house counsel requested that lawyers at the British law firm Lovell, White and King provide guidance on "delaying tactics." BATCo counsel specifically requested a memorandum on "how BATCo may be able to delay and deny" production of documents.

486. In 1989, Brown & Williamson corporate counsel authored a memorandum to R.J. Pritchard, Director of BATCo, discussing the "import[ance] to avoid production of documents as long as possible" and citing Brown & Williamson's success in avoiding document production in litigation thus far.

(d) TIRC/CTR

487. On July 3, 1963, Addison Yeaman, Brown & Williamson in-house counsel, sent a wire cable to A.D. McCormick, a lawyer for BATCo, regarding his attempt to keep the results of legitimate research projects, Project Hippo and the Griffith Filter, from the Surgeon General despite his knowledge that the Surgeon General was preparing the first comprehensive report on smoking and health. Yeaman informed McCormick that "Hoyt of TIRC agreed to withhold disclosure Battelle report to TIRC or SAB until further notice from me. Finch agrees submission Battelle or Griffith developments to Surgeon General undesirable and we agree continuance of Battelle work useful but disturbed at its implications re cardiovascular disorders. . . . We believe combination Battelle work and Griffith's developments have implication which increase desirability reevaluation TIRC and reassessment fundamental policy re health."

(e) Lorillard

488. In 1977, Alexander Spears of Lorillard advised a scientist who was to deliver a research paper that he must delete data from a study related to human smoking habits or he would not be permitted to deliver the paper.

(3) Improper Use of Attorney-Client Privilege

489. One method by which the Defendants, through their lawyers, concealed research is through maneuvers intended to artificially and improperly "create" privileges and other legal

protections. These maneuvers were intended to and did further the enterprise's goals of (1) avoiding or, at a minimum, limiting liability for smoking and health related claims in litigation; (2) avoiding statutory and regulatory limitations on the cigarette industry, including limitations on advertising; and (3) preventing the public from learning the truth about smoking's adverse impact on health.

490. In this and other litigation, Defendants have claimed attorney-client privilege for, and refused to produce thousands of, documents which appear to be scientific in nature and specifically relate to health issues.

491. During the period in which litigation and federal regulatory activities were pending, Defendants destroyed and sequestered documents, and improperly sought to conceal research material behind the attorney-client privilege and the work product doctrine so as to avoid discovery. An element of the Defendants' scheme to "create" attorney-client privilege or work product protection was the near complete control that Defendants' lawyers exerted over joint industry and individual company scientific research. See Section IV.F. above.

(a) Findings of Abuse of "Privilege"

492. Several courts have ruled that Defendants have attempted to designate documents as privileged despite a complete lack of a valid basis for privilege, that the claimed privilege is inapplicable due to the crime-fraud exception, or that the claimed privilege has been lost as a result of abuse of the privilege.

493. In State of Minnesota v. Philip Morris Inc., the court found that Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, BATCo, American, Lorillard, CTR, and the Tobacco Institute "claimed privilege for documents which are clearly and inarguably not entitled

to protections of privilege"; "that many documents examined contained nothing of a privileged nature, establishing a pattern of abuse"; and that these Defendants "have been found to have committed numerous abuses of privilege." Based upon the "intentional and repeated misuse of claims of privilege [which are] intolerable in a court of law," the court found that "an appropriate sanction for such abuse is release of all documents for which privilege is improperly claimed." The court also adopted the special master's findings that for several categories of documents, including scientific reports, the crime-fraud exception to the attorney-client privilege applied. State of Minnesota v. Philip Morris Inc. et al., No. C1-94-8565, 1998 WL 257214, at *9 (Minn. Dist. Ct. Mar. 7, 1998), mandamus denied sub nom., State of Minnesota v. Philip Morris, Inc. et al., No. CX-98-414 (Minn. App. Mar. 17, 1998), petitions for further review denied sub nom., State of Minnesota v. Philip Morris Inc. et al., Nos. CX-98-414, CX-98-431, 1998 WL 154543 (Minn. Mar. 27, 1998), stay denied, 523 U.S. 1056 (1998).

494. In April 1997, the Florida Circuit Court upheld a special master's ruling that lawyers for Defendants American, R.J. Reynolds, Brown & Williamson, BATCo, Philip Morris, Liggett, Lorillard, CTR, and the Tobacco Institute "undertook to misuse the attorney/client relationship to keep secret research and other activities related to the true health dangers of smoking." State of Florida v. American Tobacco Co., Civ. Action No. CL 95-1466 AH (Palm Beach Cty., Fla., filed Feb. 21, 1995).

495. In State of Minnesota v. Philip Morris Inc. et al., the court struck claims of attorney-client privilege as a result of continued and blatant disregard of court orders, the authority of the court, and the judicial process by Brown & Williamson and American. State of Minnesota v. Philip Morris, et al., No. C1-94-8565 (Minn. Dist. Ct. Dec. 30, 1997).

496. In State of Washington v. American Tobacco Co., Inc., et al., the court issued several rulings in which it determined that numerous documents for which Defendants American, Brown & Williamson, Liggett, Lorillard, Philip Morris, R.J. Reynolds, CTR, and the Tobacco Institute had asserted privilege were subject to the crime/fraud exception and were therefore "de-privileged." The bases for the findings included "that defendants attempted to misuse legal privileges to hide research documents"; "that attorneys controlled corporate research and/or supported the results of research regarding smoking and health"; "that the industry, contrary to its public statements, was suppressing information about smoking and health"; "that CTR was neither created nor used to discover and disseminate the 'truth,' contrary to defendants' representations to the public"; "that Special Account #4 was used to conceal problematic research"; and "that CTR and the SAB [Scientific Advisory Board] were not independent and that the industry's use of CTR was misleading to the public." State of Washington v. American Tobacco Co., Inc., et al., No. 96-2-15056-8 SEA (King Cty. Sup. Ct. 1998).

497. In Sackman v. Liggett Group, Inc., the court found that attempts by Liggett, Philip Morris, Brown & Williamson, R.J. Reynolds, Lorillard, and CTR to designate CTR Special Project documents as privileged was inappropriate. 173 F.R.D. 358, 362-364 (E.D.N.Y. 1997). The court concluded that, despite lawyer involvement in Special Projects, the documents were not privileged because they were prepared to further the public relations position of the tobacco manufacturers and that any usefulness in litigation "was merely an incidental benefit." Id. p. 363.

498. The court in Burton v. R.J.Reynolds Tobacco Co., found that plaintiffs had made a prima facie showing that the crime-fraud exception applied to documents withheld by R.J. Reynolds and American. 167 F.R.D. 134, 142 (D.Kan. 1996). In a separate later opinion, the

court found that numerous documents identified as privileged by R.J. Reynolds and American were in fact not privileged, including memoranda relating to research and development, letters from outside counsel on scientific research, literature reviews prepared by scientists at the direction of counsel, minutes of research-related meeting, and notes made by employees at industry meetings on smoking and health research. 170 F.R.D. 481, 490 (D. Kan. 1997).

499. In Carter v. Brown & Williamson Tobacco Corporation, the court found that even if a privilege existed, an issue which the court did not reach, the crime-fraud exception applied to certain Brown & Williamson documents (the Merrell Williams documents). Carter v. Brown & Williamson, Case No. 95-00934 CA (Duval Cty. Cir. Ct., Fla., Transcript July 26, 1996 pp. 1329-1332).

500. In Haines v. Liggett Group, Inc., et al. 140 F.R.D. 681, 689 (D.N.J. 1992), (vacated on procedural grounds), 975 F.2d 81 (3rd Cir. 1992), the court, following an in camera review of 1,500 documents, confirmed "plaintiff's contentions of the explicit and pervasive nature of the alleged fraud by defendants [Liggett, Lorillard, R.J. Reynolds, Philip Morris, and the Tobacco Institute] and defendants' abuse of the attorney-client privilege as a means of effectuating that fraud." Specifically, the court found "that the attorney-client privilege was intentionally employed to guard against . . . unwanted disclosure." Id. at 684. Finally, the court stated that defendants and their lawyers "abused the attorney-client privilege in their efforts to effectuate their allegedly fraudulent schemes." Id. at 695.

(b) Brown & Williamson and BATCo

501. Defendants Brown & Williamson and BATCo, jointly and individually, created mechanisms by which improper and false attorney-client privilege or work product protection

were invoked for non-privileged documents not created in anticipation of litigation, including scientific and research documents, in order to prevent the disclosure of documents which they believed would likely be sought in litigation and in federal regulatory proceedings, and would provide information to the public on the adverse impact of smoking on health.

502. Brown & Williamson and BATCo attempted to create the improper attorney-client privilege or work product protection over documents through various means including routing them through lawyers, maintaining scientific materials in lawyer's files, and indiscriminately marking them as "privileged and confidential" or other such designations.

503. In 1975, BATCo Secretary P.J. Ricketts issued a document encouraging employees to give documents and information to attorneys in an attempt to create privilege where none exists. Ricketts advised:

In most cases information which has been given and papers and documents which have been physically handed over to the Company Solicitor will be privileged: a result of which he will not be forced to disclose any documents etc., to these authorities unless in exceptional circumstances, he is required to do so by Court Order. Privilege extends only to the documents, papers etc., actually in the possession of the Solicitor and not to any copies.

. . .

Legal Department should, therefore, be informed and all relevant papers handed over to the Company Solicitor immediately if interest is shown by an outside authority in any matter which has been the subject of these special procedures.

Documents subject to these "special procedures" included "questions of product liability."

504. In the late 1970s, Brown & Williamson developed a mechanism to prevent smoking and health documents from its research facility in Southampton, England from becoming discoverable in litigation in the United States. The mechanism involved utilizing a blanket designation that all scientific documents were created "for defense of potential

litigation"; maintaining control of the documents by the legal department; and disseminating the documents to scientists only after prior approval by the legal department. Brown & Williamson in-house counsel Kendrick Wells stated that "[c]ontinued Law Department control is essential for the best argument for privilege. . . . The general policy should be clearly stated that access to the documents and storage of the documents is under control of the Law Department and access is granted only upon approval of request."

505. In 1979, Brown & Williamson developed a plan to "afford protection against discovery" of scientific documents that demonstrated a link between smoking and health problems by falsely designating them as work product prepared in anticipation of litigation. In a memorandum from Brown & Williamson corporate counsel J. Kendrick Wells to Ernest Pepples, Brown & Williamson's Vice President of Law, Wells outlined a plan for routing all scientific documents from BATCo through a Brown & Williamson scientist designated as an agent of the general counsel. The scientist would "separate reports which were relevant to smoking and health, or otherwise sensitive for special handling" and the documents "designated as sensitive" would be "sequestered." Moreover, the plan specifically provided that "in the operational context BAT would send documents without attempting to distinguish which were and which were not litigation documents."

506. In September 1984, BATCo personnel were instructed to route "contentious" items from the research department through counsel "thus maintaining the legal privilege – 'attorney work product'."

507. In January 1985, at the request of Pepples, BATCo instituted a new policy that incorporated the use of external lawyers in an attempt to further enhance the attempt to "create"

privilege protection for sensitive scientific documents. The policy required that BATCo send "contentious" research and development reports to Robert Maddox, an attorney in private practice in Louisville, Kentucky, where Brown & Williamson's headquarters is located, rather than to scientists at Brown & Williamson. The instructions indicated that "[t]he recipient list must not contain the name of any B&W person, not that of Maddox or of his company." The process was instituted to attempt to have attorney-client or work product privilege improperly attach to documents that were prepared in the normal course of BATCo's research and development activities, not in anticipation of litigation. A draft legal opinion from March 1985 by Brown & Williamson's counsel Simpson Thacher & Bartlett, confirmed that this arrangement had been put in place. As the Simpson Thacher lawyers stated: "We understand that some months ago, an interim system was placed in effect whereby Southampton [the location of the GR&DC facility] ceased forwarding the underlying research reports directly to B&W. An agenda listing the reports generated is, however, periodically forwarded to an attorney in Louisville, Kentucky, who reviews the agenda with representatives of B&W."

508. This procedure – designed to keep scientific evidence and information away from the public and out of the courts – has also been confirmed by a document released by BATCo for the first time in this case and only after the United States filed its Third Motion to Compel BATCo to Produce Documents Withheld Based on Assertions of Privilege or Protection. One of the documents produced was part of a handwritten letter attributed to Richard Binn, the former Manager of BATCo's Group Research & Development Centre at Southampton. The letter discusses BATCo's practice of routing scientific research to Brown & Williamson through attorney Robert Maddox: "Report – stopped sending direct to B&W in Jan. Maddox farce.

B&W withdrawn from circulation lists (but get 2 copies)." Binns also sheds some light on the expansive role of lawyers in BATCO's science, writing that:

I am being asked to make significant and sometimes [handwriting unclear] changes in documents produced recently by R&D staff. It is suggested that this must be done by finding a "managerial explanation" for the changes, without reference to the involvement of Legal Department. I will find this impossible to do. Senior R&D staff will not be so easily deceived. Personally, I am not prepared to lie to staff for very doubtful reasons. Therefore, the current lack of clarity about the relationship between R&D and Legal Dept. has raised questions which for me are ethically disturbing, particularly if extended beyond the present localized situation.

509. In 1988, Andrew Foyle of the firm Lovell, White & King wrote to a BATCO scientist at the Southampton facility and instructed the scientists to create a "modus operandi to ensure that legal professional privilege is not lost with respect to scientific documents related to Brueger's disease." The scientists were instructed to attempt to create a legal privilege by routing scientific documents through lawyers. Foyle wrote that "[b]ecause correspondence on the subject of Brueger's disease exchanged between you and your colleagues in other companies might not be privileged, it is important that contact between the scientists should be routed through the lawyers. In addition you should ensure that any internal memoranda written on the subject of Buerger's disease in relation to the current investigations should be captioned 'Privileged and Confidential'."

(c) R.J. Reynolds

510. Defendant R.J. Reynolds created mechanisms by which improper and false attorney-client privilege or work product protection were invoked for non-privileged documents not created in anticipation of litigation, including scientific and research documents, to prevent

the disclosure of documents which it believed would likely be sought in litigation and in federal regulatory proceedings, and would provide information to the public on the adverse impact of smoking on health.

511. By 1965, Frank Colby had assumed the responsibility at R.J. Reynolds for analyzing smoking and health research. Colby has admitted that these purely scientific literature analyses were "channeled through lawyers. The smoking and health analysis was channeled through the lawyers mostly."

512. Roy Morse, a former research chief at R.J. Reynolds from 1981-1983 has stated that when a scientific study was funded by R.J. Reynolds's counsel Edwin Jacob, "it was a privileged relationship and it couldn't come into court" because of legal rules protecting attorney-client communications. "So they could do projects that they could bury if they chose."

513. In an attempt to create attorney-client privilege over records received by R.J. Reynolds from CTR in the normal course of its business, in 1983 R.J. Reynolds decided to "remove CTR related smoking and health materials from our premises for legal reasons." They were sent to the law firm of Jacob, Medinger & Finnegan via a former R.J. Reynolds scientist Frank Colby, who was leaving the company to work at the law firm.

(d) Liggett

514. Liggett created mechanisms by which improper and false attorney-client privilege or work product protection were invoked for non-privileged documents not created in anticipation of litigation, including scientific and research documents, to prevent the disclosure of documents which it believed would likely be sought in litigation and in federal regulatory proceedings and would provide information to the public on the adverse impact of smoking on

health.

515. In 1978, Liggett first began its efforts to hide documents, including scientific documents, related to Project XA behind the attorney-client privilege. Project XA is an important less hazardous scientific research project. Despite the scientific nature of the project and the fact that the project was "under the direct responsibility of the President's Office," Joseph H. Greer, Liggett's General Counsel, ordered that all documents regarding the project be sent to him or a legal department staff member. To enhance the potential for hiding the documents behind the attorney-client privilege, the project was put under the control of the Legal Department.

516. In 1979, Liggett's attempt to hide documents related to the XA project behind the attorney-client privilege became even more clear when a Liggett Vice President, R.B. Seidensticker, followed up on Greer's earlier directive related to Project XA. By this time the project had become formally known as the "Law Department's XA Project." Seidensticker asked Greer to "please issue a memorandum to those concerned requesting that any materials which have not already been turned over to the Law Department related to XA, be it financial, scientific, production or marketing, should be transferred to the Law Department no later than Thursday, June 28."

517. During the 1990s, Liggett scientists were directed to label their work as privileged and confidential in order to prevent its discovery in civil litigation. As stated by Liggett's Manager of Science Issues, "we had become sensitized to labeling a lot of documents privileged and confidence [sic] without thinking[,] it was kind of just a matter of fact thing to do. . . . [M]ost of the documents that we put out, I think, are always subject to discovery. And not

knowing exactly where – where this was gonna go, it was just considered almost standard practice to do that."

(e) Lawyer Involvement in Science to Attempt to Create Privilege

518. Attorneys for the tobacco industry, not scientists, directed the scientific research and other scientific matters of the industry. Defendants' lawyers were the driving force behind both the direction and suppression of scientific research. Lawyer control was used in large part in an improper attempt to "create" attorney-client privilege or work product protection for scientific documents and information where none existed.

519. In the late 1980s, as the Defendants prepared to disclose documents for the first time in the Cipollone case, the Defendants realized that their documents would disclose the inappropriate control of science by lawyers when it drafted anticipated press inquiries such as the following:

6. Is it true that trial attorneys were involved in research funding decisions?
...
8. If CTR was formed to conduct independent research, why were trial attorneys involved in the organization? What do trial attorneys contribute to independent scientific research?
...
6. The companies have maintained that one of their goals is to advance knowledge on smoking and health and yet there is evidence that attorneys for the companies review and revise prior to publication research findings and public statements concerning smoking and health. How do attorneys contribute to the goal of advancing knowledge on smoking and health?

520. In fact, the research jointly funded by the Defendants through CTR Special Projects and lawyers' special accounts was admittedly not intended to get to the truth about

smoking and health. As explained by Lorillard's Research Director in a 1974 memorandum to Curtis H. Judge, Lorillard's Chief Executive Officer:

Historically, the joint industry funded smoking and health research programs have not been selected against specific scientific goals, but rather for purposes such as public relations, political relations, position for litigation, etc. . . . In general, these programs have provided some buffer to public and political attack of the industry, as well as background for litigious strategy (emphasis added).

521. During the mid-1960s, Defendants' lawyers became increasingly interested in controlling sensitive industry research related to smoking and health, but wanted to avoid any exposure of adverse research. Thus, the Defendants' lawyers created an unpublicized category within CTR called Special Projects. CTR Special Projects were selected by Defendants' lawyers to provide research favorable to the industry for purposes including litigation and public relations.

522. As explained in notes of a Committee of Counsel meeting in 1981, Special Projects were used to allow Defendants' lawyers to categorize research depending on whether the outcome was or might be adverse to the Defendants, allowing the lawyers to prevent publication of adverse scientific findings. The minutes of this meeting discuss the distinction between CTR Special Projects and Lawyers' Special Projects, which furthered Defendants' improper attempts to hide adverse findings behind the attorney-client privilege where the lawyers "were afraid of discovery." The notes reflect a discussion at the meeting between Arthur Stevens, Lorillard General Counsel, and Ed Jacob, outside counsel to the industry:

Stevens:	I need to know what the historical reasons were for the difference between the criteria for lawyers' special projects and CTR special projects. . . .
Jacob:	When we started the CTR Special Projects, the idea

was that the scientific director of CTR would review a project. If he liked it, it was a CTR Special Project. If he did not like it, then it became a lawyers' special project.

Stevens: He took offense re scientific embarrassment to us, but not to CTR.

Jacobs: With Spielberg, we were afraid of discovery for FTC and Aviado, we wanted to protect it under the lawyers. We did not want it out in the open.

523. Defendants' lawyers had exclusive control over funding decisions related to the Special Projects. See Section I.E. above and Section IV.F. below for a discussion of some of the documents evidencing the control that Defendants' lawyers had regarding the funding decisions regarding CTR Special Projects.

524. One important reason for the existence of Special Projects was Defendants' belief that such projects could be protected through the attorney-client privilege and work product doctrine. Special Projects were sponsored and approved by the Defendants' attorneys. Attorneys would approve the Defendants' funding of specific Special Projects, monitor the project, and request that CTR assign each project a number. As explained by one internal document discussing a lawsuit in which "Special Projects" were "at issue," "[l]awyer involvement cannot be denied or minimized, it was simply too pervasive."

525. In 1964, after an extensive examination of the United States tobacco industry regarding the issue of smoking and health, a group of British scientists reported that a committee of lawyers (the Committee of Counsel) was given the authority for "clearing papers (e.g. Dr. Little's annual report)." Clarence Cook Little was the first Scientific Director of TIRC/CTR. Thus, lawyers had the responsibility for "clearing" CTR's annual reports on scientific research. For a discussion of TIRC/CTR Annual Reports, see Section I.B. above.

526. In the late 1980s, as the public was becoming aware of the improper use of CTR to conduct research for use in support of litigation, Defendants' lawyers merely moved the most egregious of this activity from CTR to Defendants' lawyers Shook, Hardy & Bacon.

(f) Admissions and Internal Complaints Regarding Lawyer Manipulation of Research

527. During the 1970s, an Industry Research Committee – comprised of attorneys and public relations employees of the Cigarette Company Defendants – considered what type of research CTR should conduct and helped develop these projects. A memo dated November 4, 1978, from Janet C. Brown, an attorney for American Tobacco, explained "the industry thus moved closer to becoming the arbiter of the amount of CTR research done (by reason of its control of CTR's budget) and the type of research done (by reason of the changes in scope and direction of research, as dictated by Yeaman's [a lawyer's] letter)."

528. As early as 1969, Defendants' scientists began complaining that Defendant-funded science had become compromised because of the use of science to support litigation. In a Philip Morris memorandum, Helmut Wakeham, Philip Morris's Vice President and Director of Research, lamented the fact that despite the scientific expertise of the tobacco industry to conduct smoking and health research, this expertise was not being utilized because of the legal situation: "Unfortunately . . . the scientific expertise of the industry, because of the liability suit situation, has not been permitted to make a contribution to the problem, a contribution which I believe was and is vital"

529. In a meeting in 1970, Wakeham, again complaining about the litigation and lawyer control of science, told D.G. Felton, BATCo's then Manager of Research Planning and later Manager of Smoking & Health Issues, "that the replacement for Dr. Little as Scientific

Director of CTR is being sought by the lawyers committee and the Tobacco Institute without reference to the scientists."

530. In the same 1970 document, Felton noted how he explained to Wakeham that lawyer control of science was the reason why TRC, the British counterpart to CTR, was unwilling to cooperate with and include among its ranks American scientists. Felton stated that TRC members feared "scientific co-operation [with American scientists] as the thin end of a wedge which might lead to undue influence in TRC affairs by American lawyers."

531. A June 24, 1974 Lorillard memorandum explained how CTR was used by lawyers not for scientific research but for litigation ends:

Historically, the joint industry funded smoking and health research programs have not been selected against specific scientific goals, but rather for various purposes such as public relations, political relations, position for litigation, etc. Thus, it seems obvious that reviews of such programs for scientific relevance and merit in the smoking and health field are not likely to produce high ratings. In general, these programs have provided some buffer to public and political attack of the industry, as well as background for litigious strategy.

532. In 1978, Sheldon Sommers, Chairman of the CTR Scientific Advisory Board, complained to William Gardner, the Scientific Director of CTR, that he (Sommers) was unable to understand the legal counsel he was being given. The clear import of Sommers' letter was that the CTR lawyers were controlling tobacco research by CTR based upon legal considerations. Sommers stated: "I think CTR should be renamed Council for Legally Permitted Tobacco Research, CLIPT for short." Indeed, the lawyer control of CTR had become so pervasive that Sommers concluded that "[m]y considered opinion is that the time for me to sever connections with CTR is near."

533. Sommers's sentiment that CTR was being used to further the legal interests of the company is confirmed by the Brown & Williamson general counsel who explained in 1978 that "CTR helps protect the industry from potential 'smoking pistol(s) in a lawsuit' should research go wrong," and a later analysis of Defendants' documents by their lawyers in which they concluded that numerous internal company documents discussed "ways in which CTR can be used to protect the industry through defensive research."

534. In a 1978 handwritten note related to the industry's Scientific Liaison Research Committee, Curtis Judge, Lorillard's Chief Executive Officer, complained that "[w]e have again abdicated the scientific research directional management of the Industry to the 'lawyers' with virtually no involvement on the part of the scientific or business management side of the business" (emphasis in original). The note further argued that a reconstituted scientific and policy leadership committee should not "report to the Committee of Counsel."

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II

**THE ENTERPRISE IS ENGAGED IN AND AFFECTS
INTERSTATE AND FOREIGN COMMERCE**

1. The RICO Enterprise established in this case at all relevant times has been and is engaged in interstate and foreign commerce and its activities have affected, and continue to affect, interstate and foreign commerce within the meaning of 18 U.S.C. § 1962(c) and (d). Regarding Defendant-members of this RICO enterprise, the Court finds the following facts.

A. Philip Morris Companies Inc.

2. Defendant Philip Morris Companies Inc. ("Philip Morris Companies") is a Virginia corporation with its principal place of business in New York, New York, and is the parent company of Philip Morris Inc. ("Philip Morris"). Since 1985, Philip Morris Companies and its subsidiaries have established offices and plants in at least twenty-nine locations in at least seventeen states, and twenty-five locations internationally.

3. From its creation in 1985 to the present, Philip Morris Companies and its subsidiaries employed at least 100,000 people in at least seventeen different states and twenty-two foreign countries. In 1985, Philip Morris Companies reported approximately 114,000 employees. On its website, Philip Morris Companies states that it currently has "169,000 talented and diverse employees, who keep Philip Morris Companies' business fundamentals strong and its companies growing."

4. In each year since 1985, Philip Morris Companies' subsidiaries manufactured, advertised, and sold Philip Morris cigarettes to Philip Morris's customers for ultimate resale to consumers throughout the United States, including in the District of Columbia, and in foreign

countries. At various times, Philip Morris Companies' subsidiary Philip Morris has manufactured, advertised, and sold the brands of cigarettes alleged in Paragraph 10 of the United States' First Amended Complaint.

5. Fortune Magazine ranks Philip Morris Companies as one of the ten largest corporations in America.

6. From 1985 to the present, Philip Morris Companies, its predecessors and subsidiaries have obtained at least \$803.4 billion in total revenue from the sale of goods and services throughout the United States.

a. From 1985 to the present, domestic sales of cigarettes account for at least \$167.1 billion of this revenue, and international sales of cigarettes account for at least \$163.8 billion.

b. For the year 2001, Philip Morris Companies' Annual Report reported total revenues of approximately \$89.9 billion, including \$51.37 billion from the sale of cigarettes from its subsidiaries.

7. Philip Morris Companies and its subsidiaries, or their employees, have made the following additional admissions or public statements regarding the interstate nature and international scope of its business:

a. Philip Morris Companies calls itself "the largest consumer packaged goods company on earth."

b. In 2001, the Philip Morris family of companies purchased more than \$1.4 billion worth of goods and services from minority- and women-owned firms.

c. Philip Morris Companies's 2001 Annual Report states that "[o]ur tobacco and food businesses extended their leading positions in markets around the world during 2001 and generated good income growth, continued improvement in 2002."

d. Philip Morris Companies admits "that on or about January 12, 1999, [Philip Morris] entered into an agreement with Liggett under the terms of which [Philip Morris] acquired the trademarks, trade names, trade dress, service marks, registrations, and registration applications for Lark, Chesterfield and L&M cigarette brands in the United States."

e. Philip Morris Companies-owned subsidiaries sell various brands overseas, including those brands owned by other companies and distributed through licensing arrangements; similarly, other companies distribute certain Philip Morris Companies-owned brands overseas. The Benson & Hedges brand is sold by Philip Morris Companies, as well as British American Tobacco, plc, and Gallaher. The Belmont brand is sold by Philip Morris Companies, as well as by British American Tobacco, plc.

8. Through 1999, Philip Morris Companies sold Liggett Group brands overseas; in 1999, Philip Morris Companies bought most Liggett premium brands, even in the United States, such as L&M, Chesterfield and Lark.

9. In a stipulation filed with this Court on December 10, 2002, Philip Morris Companies stipulated that it has engaged in and conducted activities affecting interstate commerce within the meaning of 18 U.S.C. § 1962(c) and (d) during the period from July 1, 1985 to the present.

B. Philip Morris Incorporated

10. Philip Morris Companies' domestic tobacco subsidiary is Philip Morris Incorporated ("Philip Morris").

11. Philip Morris is also a Virginia corporation with its principal place of business in New York, New York. Since 1953, Philip Morris and its predecessors have had offices and plants in at least New York, New York; Richmond, Virginia; and Louisville, Kentucky. Current offices and facilities currently include headquarters in New York City; manufacturing, processing and support facilities in the Richmond, Virginia area; a manufacturing facility in Cabarrus County, North Carolina; a materials conversion plant in Louisville; sales offices throughout the United States; and an office in the Commonwealth of Puerto Rico.

12. In each year since 1953, Philip Morris and its predecessors have employed at least 3,800 people in its facilities in many states and foreign countries.

13. In each year since 1953, Philip Morris and its predecessors have manufactured, advertised, and sold its cigarettes to its direct customers for ultimate resale to consumers throughout the United States, including the District of Columbia, and from 1953-1967 in foreign countries.

14. Since 1953, Philip Morris and its predecessors have obtained at least \$157 million in total revenue annually.

a. From 1954 to the present, Philip Morris has obtained at least \$245.5 billion in total revenue from the sale of goods and services throughout the United States and in foreign countries.

b. Philip Morris's reported operating revenues for 2001 were over \$24.7 billion and reported operating companies' income for the same period was over \$5.2 billion.

15. Philip Morris, its affiliates, or their employees have made the following additional admissions or public statements regarding the interstate nature and scope of its business:

a. Philip Morris proclaims itself as the "nation's leading cigarette manufacturer."

b. Philip Morris markets eighteen brands of cigarettes throughout the United States and the District of Columbia: Marlboro, Virginia Slims, Benson & Hedges, Merit, Parliament, Alpine, Basic, Cambridge, Bristol, Bucks, Chesterfield, Collector's Choice, Commander, English Ovals, Lark, L&M, Saratoga and Superslims. Until the mid-1980s, Philip Morris included Philip Morris International. Philip Morris International, now a sister corporation, markets the following brands in foreign countries: Marlboro, L&M, Philip Morris, Lark, Bond Street, Parliament, Chesterfield, Diana, Apollo Soyuz, Merit, Petra, SG, Caro, Virginia Slims, Klubowe, Multifilter, Polyot, f6, Longbeach, Peter Jackson, Dallas, Muratti, Kazakstan, Benson & Hedges, Sparta, Next, Congress, Red & White, Le Mans, Helikon, Nacional, Medeo, Astor, Rubios, Galaxy, Astra, Belmont, Kosmos, Derby, Alpine, Lider, Raffles, Prima, Klaipeda, Português Suave, Eve, Brunette, Carmen, Palace, Imparciales, Luxor, Kaunas, Kastitys, Particulares, Fiesta, Diplomat, Partner, Colorado, Talisman, Kosmosas, Juwel, Zefir, Karo, Full Speed, Mercedes, Visa, Ritz, Saratoga, Premier, Good Companion, Bond, Wilton, Basic, and Freeport.

c. Philip Morris admits that "A Frank Statement to Cigarette Smokers"

appeared in 448 newspapers in 258 cities on or about January 4, 1954. Philip Morris is informed and believes that the names of certain manufacturers, including Philip Morris, were listed as sponsors of the announcement.

d. Philip Morris calls its Marlboro brand "the number one brand across all states in the country and in every major trade class."

e. Philip Morris has "about 1,800 territorial salesmen."

f. According to Michael Szymanczyk, current Chairman and former President and Chief Executive Officer of Philip Morris until 2002, approximately 400,000 various kinds of retail operations sell cigarettes throughout the United States, and "probably the majority of them" sell Philip Morris products.

g. On June 13, 2002, Szymanczyk testified that one of Philip Morris's objectives is "to grow our share of the brands in the marketplace" and to "increase [Philip Morris's] share of whatever market exists";

h. On June 13, 2002, Szymanczyk further testified that Philip Morris's marketing services staff also handles "print advertising" which includes print advertising in magazines or newspapers;

16. Philip Morris produces "between about 10 and 15 percent" of the sales product of Philip Morris International, Philip Morris Companies' international subsidiary.

17. As early as 1954, Philip Morris's Annual Report stated that "export sales show steady increase," and referred to markets in "Venezuela, Netherlands, Switzerland and Hong Kong."

18. In a stipulation filed with this Court on December 10, 2002, Philip Morris stipulated that it has engaged in and conducted activities affecting interstate commerce within the meaning of 18 U.S.C. § 1962(c) and (d) during the period from 1953 to the present.

C. R.J. Reynolds Tobacco Company

19. Defendant R.J. Reynolds Tobacco Company ("R.J. Reynolds") is a New Jersey corporation with its principal place of business in Winston-Salem, North Carolina. Since 1953, R.J. Reynolds and its affiliates have had offices and plants in at least thirty locations nationally in nineteen different states, and forty-five locations internationally.

20. In each year since 1953, R.J. Reynolds, its predecessors, and affiliates employed thousands of people in its facilities in at least nineteen different states. In 1954, R.J. Reynolds reported 11,540 employees. As of December 31, 2000, R.J. Reynolds reported 8,100 employees in many different states.

21. In each year since 1953, R.J. Reynolds, its predecessors, and affiliates manufactured, advertised, and sold R.J. Reynolds's cigarettes to its direct customers for ultimate resale throughout the United States, including the District of Columbia, as well as in foreign countries until 1999.

22. From 1953 to the present, R.J. Reynolds, its predecessors, and affiliates have obtained at least \$188 billion in total revenue from the sales of goods and services throughout the United States and foreign countries.

a. From 1972 to the present, sales of cigarettes throughout the United States account for at least \$126.3 billion of this revenue, and international sales of cigarettes account for

at least \$43.8 billion.

b. For the year 2001, R.J. Reynolds reported total revenues of approximately \$8.585 billion from the sale of cigarettes.

23. R.J. Reynolds, its affiliates or their employees have made the following additional admissions or public statements regarding the interstate nature and scope of its business.

a. R.J. Reynolds stated on its website in 2002 that it is "the second-largest tobacco company in the United States, manufacturing about one of every four cigarettes sold in the United States. R.J. Reynolds' tobacco product line includes four of the nation's ten best-selling brands: Camel, Winston, Salem, and Doral."

b. R.J. Reynolds has established an Electronic Data Interchange ("EDI") website to facilitate the procurement of goods and services in interstate commerce and the transmission of funds through the interstate banking system. The Mission Statement for this website states "RJRT strives to strengthen our Trading Partner relationship through the use of EDI and Electronic Funds Transfer ("EFT"). EDI and EFT allows computer-to-computer communication of business documents and banking transactions between RJRT and its valued trading partners."

c. In its Fact Book for 2001, R.J. Reynolds stated that it has "about a 23% share" of the U.S. cigarette market. It further claims that its Camel brand places with 5.5% Retail Market Share ("RMS") in 2001; that its Doral brand was fourth with 5.9% RMS; that its Winston brand was sixth, with 4.8% RMS; and that its Salem brand was eighth with 2.7% RMS.

d. R.J. Reynolds stated on its website in 2002 that "Our company's rich heritage

of innovation in the laboratory and in the marketplace continue to serve us well in successfully meeting the cigarette brand preferences of about 25% of the nation's 46.5 million adult smokers."

e. R.J. Reynolds admitted in its Answer to the United States' Complaint that "A Frank Statement to Cigarette Smokers" was published in a number of newspapers on or about January 4, 1954 and that R.J. Reynolds and other companies were identified as sponsors of this publication."

f. In a 1997 statement prepared for public release, R.J. Reynolds stated that since 1962, it has awarded research grants totaling over \$17.5 million in funds through the interstate banking system to land grant universities in seven tobacco producing states.

g. On March 13, 2002, Tommy Joe Payne, R.J. Reynolds's Executive Vice President for External Relations, testified in a deposition that R.J. Reynolds's External Relations group has a total of "about 55 full time employees" located in Winston-Salem, North Carolina, and Washington, D.C.

h. On June 25, 2002, Mark Smith testified that he was formerly R.J. Reynolds Senior Manager for Public Affairs. The duties of this position included "working on brand publicity and tax issues in various states and the American Federal Government."

24. In 1999, R.J. Reynolds sold its overseas brands to Japan Tobacco, a foreign concern.

25. In a stipulation filed with this Court on December 10, 2002, R.J. Reynolds stipulated that it has engaged in and conducted activities affecting interstate commerce within the meaning of 18 U.S.C. § 1962(c) and (d) during the period from 1953 to the present.

D. Liggett Group, Inc.

26. Liggett Group, Inc. ("Liggett") is a Delaware corporation which maintains its principal place of business in Durham, North Carolina. Liggett is an indirect subsidiary of Vector Group Ltd. ("Vector"), a company listed on the New York Stock Exchange with principal offices in Miami, Florida. Liggett and Myers was a Liggett subsidiary. Since 1953, Liggett and its affiliates have had offices and plants in at least thirteen locations in nine different states, and six locations internationally.

27. In each year since 1953, Liggett, its predecessors and affiliates have employed hundreds of people in its facilities located in as many as thirteen locations nationally and six locations internationally. In 1955, Liggett reported "about 10,000" employees. Liggett currently has approximately 600 domestic employees in various states in the United States.

28. Since 1953, Liggett has manufactured cigarettes for ultimate retail sale throughout the United States, including the District of Columbia, and in foreign countries.

29. Since 1953, Liggett, its predecessors, and affiliates have obtained at least \$294 million in total revenue annually from the sale of goods as services throughout the United States and in foreign countries.

30. From 1954 to the present, Liggett, its predecessors, and affiliates have obtained at least \$22.3 billion in total revenue from the sales of goods throughout the United States and internationally, with at least \$8.7 billion attributable to the sale of cigarettes or tobacco products.

31. Liggett's reported revenues for the calendar year ending December 31, 2001 were approximately \$728.2 million and reported operating income for the same period was over

\$107 million.

32. Liggett, its affiliates, or their employees have made the following additional admissions or public statements regarding the interstate nature and scope of its business.

a. On its website for 2002, Liggett stated that it is one of the six largest manufacturers of cigarettes in the United States in terms of unit sales.

b. On June 21, 2002, Bennett LeBow, Vector's Chairman and Chief Executive Officer, testified that Liggett is now growing genetically modified tobacco in Pennsylvania, Mississippi, Louisiana, and Illinois and that Vector Group, Ltd., built its own stemmery in Timberlake, North Carolina, to handle its genetically modified tobacco, at a cost of between fifteen and twenty million dollars.

c. Liggett calls its Mebane, North Carolina-based manufacturing complex "among the most modern and efficient in the industry." The operation currently produces almost 250 unique products and is designed to maximize manufacturing flexibility. The complex includes a 240,000 square foot manufacturing complex and a 60,000 square foot state-of-the art distribution center.

d. Liggett's Northern Strategic Business Unit currently consists of the sales force that covers the area from Maine to Maryland and out to Ohio, Indiana, Michigan, Illinois, Wisconsin.

e. Liggett uses one advertising agency in North Carolina and one in New York to handle all of its advertising.

33. Liggett affiliate Vector Tobacco is also wholly owned subsidiary of Vector Group,

Ltd. Vector Tobacco has an office in New York, New York, that handles sales and marketing, public health, and some research matters.

34. In a stipulation filed with this Court on January 27, 2003, Liggett stipulated that it engaged in and conducted activities affecting interstate commerce within the meaning of 18 U.S.C. § 1962(c) and (d) during the period from 1990 through January 27, 2003. Liggett further stipulated that its predecessors in interest engaged in and conducted activities affecting interstate commerce within the meaning of 18 U.S.C. § 1962(c) and (d) from 1953 until 1990.

E. Lorillard Tobacco Company

35. Lorillard Tobacco Company ("Lorillard") is a Delaware corporation with its principal place of business in Greensboro, North Carolina. Lorillard is a wholly owned subsidiary of Lorillard, Inc., which in turn is a wholly owned subsidiary of Loews Corporation. Loews Corporation is a Delaware corporation, with its principal place of business in New York.

36. Since 1953, Lorillard has had as many as eleven offices and plants in nine different states, with Field and Division Sales Offices "in all principal cities," and at least two locations internationally until 1977.

37. In approximately 1997, Lorillard moved its corporate offices from New York to North Carolina.

38. In each year since 1953, Lorillard has employed at least 3,000 people. In 1954, Lorillard reported 6,126 employees. On its website for 2002, Lorillard states that it currently employs "close to 3,300 people in 48 states, and do[es] business in all 50 states and Puerto Rico."

39. In each year since 1953, Lorillard or its predecessor entities have manufactured

cigarettes that were advertised and sold throughout the United States, including the District of Columbia.

40. Since 1953, Lorillard, its predecessors, and affiliates have obtained at least \$116 million in total revenue annually from the sale of goods and services throughout the United States.

41. From 1954 to the present, Lorillard, its predecessors and affiliates have obtained at least \$277 billion in total revenue from the sale of goods and services throughout the United States. Loews Corp. reported operating revenues for 2001 of over \$19.4 billion. For the period 1973 to the present, Lorillard, its predecessors and affiliates have reported income of at least \$42.4 billion from tobacco sales.

42. For the year 2001, Lorillard reported total revenues of approximately \$4.528 billion, all of which was obtained from the sale of cigarettes.

43. Lorillard, its affiliates, or their employees have made the following additional admissions or public statements regarding the interstate nature and scope of its business:

a. The 2001 Loews Corporation Annual Reports states that "Newport, Lorillard's flagship brand, increased its overall share of the cigarette market for the eleventh consecutive year, reaching 8.0 percent in 2001."

b. Lorillard created a computerized direct mail database in approximately 1993. According to Martin Orlowsky, Lorillard's Chairman, Lorillard buys names to add to this database from "organizations that have lists of names that they qualify as smokers . . ." and obtains names from "various promotional activities that we might conduct for the company,

where . . . smokers can add their name to our list."

c. On February 25, 2002, Kathleen Sparrow, Lorillard's Vice President of Sales, testified in a deposition that Lorillard had approximately 150 divisions within its Sales Department.

d. Lorillard uses direct mailing as a form of direct promotion of its products to consumers throughout the United States.

44. The Newport brand is sold by both Lorillard (within the United States) and British American Tobacco, plc (overseas) by virtue of a licensing arrangement between the two companies.

45. In a stipulation filed with this Court on December 10, 2002, Lorillard Tobacco Company stipulated that it has engaged in and conducted activities affecting interstate commerce within the meaning of 18 U.S.C. § 1962(c) and (d) during the period from 1953 to the present.

F. British American Tobacco (Investments) Limited

46. British American Tobacco (Investments) Limited ("BATCo"), formerly known as British American Tobacco Company Limited, is a company incorporated under the laws of England and Wales, with principal offices in London. BATCo is a subsidiary of British American Tobacco, p.l.c. ("BAT"), and between 1927 and 1979 was the corporate parent of Defendant Brown & Williamson Tobacco Company .

47. In each year since 1953, BATCo and its affiliates have employed thousands of people in its facilities located in as many as thirteen states domestically and sixty-four countries internationally. BATCo currently employs 400 people in the United Kingdom and various

foreign countries.

48. In each year since 1953, BATCo has directly or through its affiliates manufactured cigarettes that were advertised and sold throughout the United States, including the District of Columbia, and in foreign countries. For each year between 1984 and 1999, sales of BATCo's State Express 555 brand have reached at least 84,000,000 cigarettes throughout the United States and the District of Columbia.

49. In each year since 1989, BATCo has obtained at least £1 Million (an estimated \$1.53 million) in total revenue annually from the sale of goods and services throughout the United States. For the period 1989 to the present, BATCo net revenue of at least £42 Million (an estimated \$68.85 million based on average exchange rates for the relevant period) from tobacco sales in the United States.

50. BATCo, its affiliates, or their employees have made the following additional admissions or public statements regarding the interstate nature and scope of its business.

a. BATCo has sold two brands of cigarettes in the United States: State Express 555 and Ruby Queen; BATCo's State Express 555 continues to be sold through an arrangement with BATCo's affiliate, Brown & Williamson.

b. BAT's Annual Report states that "British American Tobacco is the world's most international Tobacco company with an impressive market position in Latin America and a robust position in all other regions."

c. BAT calls itself "the world's most international tobacco group. We do business in 180 countries, with a global market share of 15.1 per cent. With over 300 brands in

our portfolio, we make the cigarette chosen by one in seven of the worlds one billion adult smokers. We hold strong market positions in each of our regions and have leadership in more than 65 markets. The Group has over 80 factories in 64 countries, processing some 660 million kilos of leaf and producing over 800 billion cigarettes a year. Our companies, including associated companies, employ over 80,000 people worldwide."

d. BAT's website also contains the following financial summary for 2001:

Gross revenue £25,694 million (est. \$37.367 billion)	Net revenue £12,039 million (est. \$17.508 billion)
Operating profit pre exceptionals £2,771 million (est. \$4.030 billion)	Pretax profit £2,065 million (est. \$3.003 billion)
Adjusted EPS 61.82p (est. \$.899)	Dividends per share 32.00p (est. \$.465)
Group volumes 807 billion	Global market share 15 per cent

e. BATCo has a Smoking Issues group, which has assisted in the training of BATCo employees on corporate policy in smoking and health in various parts of the world.

f. BATCo also acts as a service company that purchases raw materials on behalf of some BAT group companies; it purchases leaf, machinery, provides R&D expertise capability, and produces products for these BAT group companies.

g. BAT has approximately 17% of the global market share for "Light" cigarettes.

51. In a stipulation filed with this Court on December 10, 2002, BATCo stipulated that it has engaged in and conducted activities affecting interstate commerce within the meaning

of 18 U.S.C. § 1962(c) and (d) during the period from 1953 to the present.

G. Brown & Williamson Tobacco Corporation

52. Defendant Brown & Williamson Tobacco Corporation ("Brown & Williamson") is a Delaware corporation with its principal place of business in Louisville, Kentucky. BATUS Holdings, Inc., a Delaware corporation with its principal place of business in Louisville, Kentucky, is an indirect subsidiary of BAT, and is an indirect corporate parent of Brown & Williamson. BAT is the ultimate shareholder and parent of Brown & Williamson. BATCo was formerly an indirect parent of Brown and Williamson and BATUS Holdings, Inc. Since 1953, Brown & Williamson has had as many as twenty-six offices, plants, and other facilities in twenty-one different states.

53. In each year since 1953, Brown & Williamson and its affiliates have employed thousands of people. On its website in 2002, Brown & Williamson stated that it has "approximately 5,000 employees throughout the U.S."

54. Brown & Williamson reported on its website for 2002, that it has plants and offices in several communities and purchases a wide range of products and services to support these operations. Commodities purchased include but are not limited to machinery, spare parts, packaging materials, industrial supplies, office supplies, fuel, gases, construction, and contract services.

55. In each year since 1953, Brown & Williamson has manufactured and sold numerous brands of cigarettes throughout the United States, including in the District of Columbia, and in foreign countries, including Kool, Lucky Strikes, Capri, Misty, Barclay, GPC,

Private Stock, Raleigh, Tareyton Special Blend, and Viceroy.

56. On its website for 2002, Brown & Williamson stated that it is the "third largest cigarette manufacturer and marketer in the U.S." and "[h]ad Third Quarter, 2001 market share of "approximately 11.2 percent of the total U.S. cigarette market."

57. In each year since 1961, Brown & Williamson estimated that it has obtained at least \$402.687 million in total revenue annually from the sale of goods and services throughout the United States. For the period 1961 to the present, Brown & Williamson estimates net revenue of at least \$70.585 billion from tobacco sales in the United States.

58. Brown & Williamson's parent reported in its 2001 Annual Report that "In the U.S., Brown and Williamson contributed £356 Million [estimated \$517.731 million] an increase of 10 percent in local currency."

59. Brown & Williamson, its affiliates, or their employees have made the following additional admissions or public statements regarding the interstate nature and scope of its business.

a. Brown & Williamson stated that on December 22, 1994, it acquired Defendant American Tobacco Company from American Brands, Inc., in a stock transaction, and on February 28, 1995, merged American into Brown & Williamson.

b. On its website, Brown and Williamson posts a "Company Fact Sheet" claiming the following "Principal International Cigarette Brands": Lucky Strike, Kent, Barclay, Capri, Kool, Viceroy, and Pall Mall.

c. On its web site, Brown & Williamson permits the user to enter a brand name,

brand style, and zip code, then displays (if available) retail outlets in that zip code carrying the brand and style selected.

d. On May 2, 2002, Nicholas Brookes testified that as Chairman and CEO of B&W, while based in Louisville, his responsibilities were to "lead Brown & Williamson Tobacco Corporation in its commercial endeavours . . . in the U.S. and . . . in Japan and Korea."

e. On June 25, 2002, Mark Smith, as Public Relations Manager for Brown & Williamson, testified that his duties covered activities in states other than Kentucky, such as Georgia, where Brown and Williamson has a major manufacturing facility in Macon, as well as researching activities in other states, such as North Carolina, where Brown & Williamson has a plant previously owned by American.

f. On August 15, 2002, Michael R. Diven, the Director of the Secondary Supply Chain at Brown & Williamson, testified that, in an earlier position with Brown & Williamson, Diven was involved with "moving [BATCO] products from production actually in Southampton, U.K. to our U.S. bonded facilities and on down to our direct customers . . . distributors and wholesalers." Diven further testified that, in 1996, BATCo transferred to Brown & Williamson the responsibility for the distribution and sale of the State Express brand as a "global initiative to reorganize BAT on a global basis." Diven further testified, "Prior to '95, '96 BATCo and Brown and Williamson competed with each other in the U.S. market," and that Brown & Williamson contracted for research related to BATCo brands among "aging consumers in . . . the New York City area, as well as California." Diven had seen "references to [BATCo] research that are conducted on a global basis and key cities have been denoted in that research where it was

conducted." He remembered "New York always kind of being one that was prevalent in places where the research was conducted."

60. In a stipulation filed with this Court on December 10, 2002, Brown & Williamson Tobacco Corporation stipulated that it has engaged in and conducted activities affecting interstate commerce within the meaning of 18 U.S.C. § 1962(c) and (d) during the period from 1953 to the present.

H. American Tobacco Company

61. Defendant American Tobacco Company ("American") was a Delaware corporation that was merged into Defendant Brown & Williamson on February 28, 1995. A separate New Jersey corporation named American Brands, Inc., was merged into American in 1985. As a result of this merger, American succeeded in interest to the tobacco products business of the New Jersey corporation named American Brands, Inc. From 1953 until its merger with Brown and Williamson, American and its affiliates have had at least four offices and plants in four different states.

62. In each year since 1953 until its merger into Brown & Williamson, American and its affiliates employed thousands of people.

63. In each year from 1953 until its merger into Brown & Williamson, American and its affiliates manufactured and sold tobacco products throughout the United States, including the District of Columbia, and foreign countries.

64. In each year since 1954 until its merger into Brown & Williamson, American has obtained at least \$558 Million in total revenue annually from the sale of goods and services

throughout the United States and in foreign countries. For the period 1954 until its merger with Brown & Williamson, American had revenue of at least \$49.2 billion in tobacco sales throughout the United States and in foreign countries.

65. American, its affiliates, agents, or employees have made the following additional admissions or public statements regarding the interstate nature and scope of its business.

a. The 1993 American Brands Annual Report stated, "American successfully held its share of the U.S. cigarette market in spite of the fierce competition that sharply reduced contributions."

b. The 1993 American Brands Annual Report further stated that "[d]espite the fierce competition, American Tobacco held its own in the marketplace, with about a 6.75% market share . . . ," and that "Tareyton retained its position as the leading charcoal filtered brand, while Pall Mall Red and Lucky Strike regular held a combined 40% share of the non filter segment."

66. In a stipulation filed with this Court on December 10, 2002, Brown & Williamson, as successor by merger to American, stipulated that American engaged in and conducted activities affecting interstate commerce within the meaning of 18 U.S.C. § 1962(c) and (d) during the period from 1953 to February 28, 1995.

I. The Tobacco Institute

67. The Tobacco Institute admits that it was a not-for-profit corporation and tobacco industry association formed in 1958 under the laws of the State of New York, and that, at one time, its principal place of business was located in Washington, D.C.

68. The Tobacco Institute bylaws in Article II provide that "any person, firm or organization engaged in the business of manufacturing and marketing of cigarettes, smoking tobacco . . . shall be eligible to become a member of the Institute." The bylaws further provide in Article III that "[e]ach member elected pursuant to Article II shall pay initial annual dues (a) in the amount of \$2,000 or (b) at the rate of (i) two fifths of a cent for every thousand for every tax paid cigarettes (sic) plus (ii) one dollar and twenty cents for every thousand pounds of tobacco produced by it during the preceding calendar year, whichever of (a) or (b) shall be larger."

69. From at least 1958 until the Tobacco Institute's dissolution on January 31, 1999, Defendants Philip Morris (1958-1999), R.J. Reynolds (1958-1999), American (1958-1999, 1988-1991), Brown & Williamson (1958-1987, 1994-1999), Lorillard (1958-1967, 1971-1999), and Liggett (1964-1996) declared contributions of over \$618.4 million to the Tobacco Institute, which were processed through the interstate banking system.

70. In addition, Tobacco Institute financial statements from 1958 until its dissolution declared contributions of at least \$548,000 and as much as \$46.2 million annually from all of its member organizations.

71. In each year since 1953 until its dissolution in 1999, the Tobacco Institute disseminated advertisements, press releases, position papers, and other information to magazines, newspapers, the broadcast media, and other news outlets throughout the United States. For the period July 1981 through November 1981 alone, for example, the Tobacco Institute budgeted almost \$900,000 for advertising. Approximately 25% of the Tobacco Institute's budget was devoted to developing and disseminating such public statements.

72. The Tobacco Institute, its agents, or former employees have made the following additional admissions or public statements as examples of the interstate nature and scope of its business:

a. On July 1, 2002, Brennan Dawson, former Senior Vice President for Public Affairs of the Tobacco Institute, testified at a deposition that the Tobacco Institute funded a "truth squad" of scientific witnesses who gave legislative testimony and did media appearances on the issue of Environmental Tobacco Smoke ("ETS") throughout the United States. Members of the "truth squad" included Jack Peterson, David Weeks, and Larry Holcomb. During the media tours, members of the "truth squad" would talk about their areas of ETS expertise. Some of these interviews, or excerpts from them, were televised; some were on the radio; print media reporters would also attend the interviews. Members of the "truth squad" wrote editorials and opinion pieces on indoor air quality issues and what role ETS plays. In addition, Dawson testified that the Tobacco Institute retained scientists and consultants to testify at governmental and regulatory proceedings at the Federal, state, and local levels. Dawson testified at such proceedings on behalf of the Tobacco Institute thirty to forty times on issues including public smoking and taxation.

b. On August 31, 1994, William Adams, Senior Vice President of Administration of the Tobacco Institute, sent a letter to David Anderson of R.J. Reynolds advising that the Tobacco Institute Management Committee had approved additional lobbying expenditures for a state initiative and requesting R.J. Reynolds's payment of \$1,585,254.

c. A financial spreadsheet dated March 31, 1995 showed the Tobacco Institute's

assessments upon member firms, payments from them, and Tobacco Institute disbursements to an Arizona initiative campaign totaling approximately \$5.5 million.

d. J. Richard Eichman, an accountant reviewing Tobacco Institute financial records, sent a letter dated October 16, 1992 to Jan Krebs of R.J. Reynolds advising that the Tobacco Institute had made contributions to California campaign committees and that R.J. Reynolds's pro rata share of the contribution to the Tobacco Institute for this effort was over \$47,000.

e. Eichman also sent a letter dated July 17, 1992 to Nicholas Simeonidis of Lorillard advising that the Tobacco Institute made contributions to California campaign committees and that the pro rata contribution for this effort was over \$8,500.

f. A financial spreadsheet dated March 21, 1995 showed Tobacco Institute's assessments upon member firms, payments from them, and Tobacco Institute disbursements for a Colorado initiative campaign totaling approximately \$5.4 million.

g. A document entitled "The Tobacco Institute Massachusetts Fair Tax Coalition 1992 Assessment Number 1" showed Tobacco Institute's allocation of contributions due from member firms for payments of approximately \$208,000 to the Massachusetts Fair Tax Coalition Campaign.

h. Kurt L. Malmgren, Senior Vice President for State Activities of the Tobacco Institute, sent a letter dated February 25, 1994 to Ernest Pepples, Senior Vice President of Brown & Williamson, thanking him for the Brown & Williamson Tobacco contribution of \$100,000 to the Michigan Citizens for Fair Taxes to fight a 1994 ballot initiative and requesting that the funds

be wired to the Tobacco Institute's bank account.

J. The Council for Tobacco Research – U.S.A., Inc.

73. The Tobacco Industry Research Council ("TIRC") was formed in January 1954 by several entities, including Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, American, and Lorillard. TIRC had its principal place of business in New York. In 1964, TIRC changed its name to The Council for Tobacco Research – U.S.A., and in 1971, the name was changed to The Council for Tobacco Research – U.S.A., Inc., ("CTR") when CTR incorporated as a not-for-profit corporation organized under the laws of the State of New York.

74. The bylaws of TIRC specified that "[e]ach of the cigarette manufacturing corporate members has pledged to the Committee for payment . . . an amount equal to 1/4 of one cent for each one thousand of tax paid cigarettes produced by such Company. . . . Such corporate members shall in addition be and remain liable for any obligation created or expense incurred by resolution of the personal committee adopted by majority vote and for any additional amounts assessed against each corporate member by resolution of the personal committee adopted by majority vote, such liability of such corporate members to be in proportion to the respective production of tax paid cigarettes of such corporate members"

75. From 1954 to 1964, Philip Morris, American, Brown & Williamson, Lorillard, and R.J. Reynolds contributed a total of approximately \$9.92 million to TIRC, which payments were processed through the interstate banking system.

76. Through 1990, CTR stated that it had funded 1,174 grants, totaling over \$238.1 million, in the United States and abroad.

77. From 1964 to 1999, Philip Morris, American, Brown & Williamson, Liggett, Lorillard, and R.J. Reynolds contributed a total of approximately \$505.4 million to CTR, which payments were processed through the interstate banking system. From the period 1954 through 1999, member contributions to the CTR General Fund, processed through the interstate banking system, totaled over \$470.2 million.

78. From about 1966 to 1990, CTR also administered the funding of certain CTR Special Projects, which were separate and distinct from CTR's grant in aid program. CTR administered Special Project funding through a separate checking account, and received direction and funding from sponsor companies, including Philip Morris Companies, Philip Morris, American, Brown & Williamson, Liggett, Lorillard, and R.J. Reynolds and/or their attorneys. CTR also sent correspondence and funds to Special Project recipients and/or their affiliated institutions through the United States Mail. For the period 1966 through 1990, CTR members contributed over \$18.2 million toward the funding of these Special Projects.

79. CTR provided funding to Special Projects recipients via checks processed through the interstate banking system, and delivered via the United States Mail, electronic funds transfer processed through the interstate banking system, or wire transfer processed through the international banking system.

80. The results of CTR-sponsored research have been published in numerous professional publications and other fora throughout the United States and in several foreign countries.

81. CTR had a contractual relationship with Processing Instruments in Brooklyn, New

York, which stored smoking machines for it and shipped these machines to CTR researchers throughout the United States upon request.

III

EACH DEFENDANT PARTICIPATED IN THE CONDUCT OF THE AFFAIRS OF THE ENTERPRISE AND IS ASSOCIATED WITH THE ENTERPRISE

1. The Court finds that at all relevant times each Defendant: (a) did conduct and participate, directly and indirectly, in the conduct of the affairs of the Enterprise found by the Court in Section I, supra; (b) did participate in the operation and management of this Enterprise; and (c) is associated with this Enterprise. See supra § I and infra §§ IV, V and VI.

2. For example, in, January 1954, Defendants Philip Morris, R.J. Reynolds, American, B&W, and Lorillard and other entities established the Tobacco Industry Research Committee (“TIRC”), which changed its name to the Council for Tobacco Research (“CTR”) in 1964. Defendant Liggett, while not a member company of TIRC/CTR, did make contributions to CTR's Special Projects fund from 1966 through 1975 and to CTR's Literature Retrieval Division from 1971 through 1983. See supra §§ I.B, I.E., I.I. These six Defendants controlled and funded TIRC/CTR to further the objectives of the Enterprise, including to preserve and enhance the Defendants’ profits by, among other means, devising and executing a scheme to defraud the public, as set forth supra in § IV, and to avoid adverse liability verdicts in the face of the growing body of scientific and medical evidence about the adverse health effects and addictiveness of smoking cigarettes. See supra § I and infra § II.

3. Each Cigarette Company Defendant (except for BATCo) agreed to fund, and did jointly fund, numerous Special Projects through CTR, a component of the Enterprise, that were designed to generate information and support research that could bolster the Defendants’ litigation positions, which contradicted such Defendants' promises to conduct independent

research through TIRC/CTR in the Frank Statement and similar statements. See supra §I.E., §II.J and infra §IV.F.

4. In January 1958, Defendants American, Brown & Williamson, Liggett, Lorillard, Philip Morris and R.J. Reynolds, and other entities established the Tobacco Institute, another component of the Enterprise, and thereafter these Defendants controlled and funded the Tobacco Institute to further the objectives of the Enterprise. See supra § I.C., § II.I. and infra § IV.

5. TIRC/CTR and the Tobacco Institute also participated in the operation and management of the Enterprise by, among other means, helping to coordinate and implement aspects of the Enterprise's scheme to defraud the public, especially its fraudulent public relations matters. See supra § I., and infra § IV.

6. Each Cigarette Company Defendant (except for BATCo and Philip Morris Companies) participated in the Tobacco Institute Committee of Counsel and other Tobacco Institute committees, additional components of the Enterprise, to further the Enterprise's objectives. See supra § I.

7. Each Defendant (except for BATCo and Philip Morris Companies) caused and aided and abetted defendants TIRC/CTR and the Tobacco Institute to commit racketeering acts in furtherance of the affairs of the Enterprise. See supra § I. and infra §§ IV, V and VI.

8. The Cigarette Company Defendants (except for Philip Morris Companies) established a "Gentlemen's Agreement" whereby they agreed that any tobacco company that discovered an innovation that could lead to the manufacture of a less hazardous or "safer" cigarette would share that discovery with other tobacco companies and that no domestic tobacco

company would use intact animal in-house biomedical research. Pursuant to this “Gentlemen’s Agreement,” the Cigarette Company Defendants sought to retard, if not prevent, the development and marketing of a potentially less hazardous cigarette. See supra § I. J and infra §§ IV. F and G.

9. Each Defendant participated in the conduct of the Enterprise’s affairs through one or more of various projects and committees designed to further the above-referenced objectives of the Enterprise, including, but not limited to: CTR Special Projects, Ad Hoc Special Projects, the Center for Indoor Air Research ("CIAR"), the Research Liaison Committee, the Industry Technical Committee, the International Tobacco Information Inc. ("INFOTAB"), Cooperation for Scientific Research Relative to Tobacco ("CORESTA"), the International Committee on Smoking Issues ("ICOSI") and its successor, the International Tobacco Documentation Center ("TDC"), the Tobacco Research Council ("TRC") and the Tobacco Manufacturers’ Standing Committee ("TMSC"). See supra § I. C-H.

10. In furtherance of the objectives of the Enterprise, all the Defendants developed and executed a scheme to defraud the public that was designed to preserve and enhance the market for cigarettes through a variety of means. See supra § I and infra § IV.

11. Each Defendant committed racketeering acts in furtherance of the affairs of the Enterprise. See infra §§ IV and V.

12. Each Defendant caused the public dissemination of numerous false, deceptive or misleading statements in furtherance of the affairs of the Enterprise. See supra § I and infra §§ IV and V.

13. Each Defendant endeavored to conceal or suppress information and documents and/or to destroy records which may have been detrimental to the interests of the members of the Enterprise, including information which could be discoverable in smoking and health liability cases against the Defendants or in Congressional and other governmental proceedings and information that could constitute, or lead to, evidence of the link between smoking cigarettes and adverse health consequences and addictiveness. See supra § I. K and infra § IV. F.

14. All the Defendants directed and coordinated various activities in furtherance of the affairs of the Enterprise through correspondence and other communications between and among the Defendants and their representatives' participation in meetings and committees. See supra § I. and infra § IV.

IV

DEFENDANTS DEvised AND EXECUTED A SCHEME TO DEFRAUD CONSUMERS AND POTENTIAL CONSUMERS OF CIGARETTES

1. From in or about December 1953 and continuing to the present, Defendants did knowingly and intentionally devise and execute a scheme and artifice to defraud consumers and potential consumers of cigarettes of money and property by means of material false and fraudulent statements, pretenses, representations and promises, and omissions of material facts, knowing that the statements, pretenses, representations and promises, were false, misleading and deceptive when made, including: (1) to deceive consumers into starting and continuing to smoke cigarettes by endeavoring to misrepresent and conceal the adverse health effects caused by smoking cigarettes and exposure to cigarette smoke and by maintaining that there was an "open question" as to whether smoking cigarettes causes disease and other adverse effects, despite the fact that the defendants knew otherwise; (2) to deceive consumers into starting and continuing to smoke cigarettes by undertaking an obligation to take actions, including funding independent research, in order to determine if smoking cigarettes causes cancer or other diseases, while pre-selecting researchers and directing funds to irrelevant research and research that supported Defendants' positions on smoking and health issues; (3) to deceive consumers into becoming or staying addicted to cigarettes by maintaining that nicotine is not addictive, despite the fact that defendants knew that nicotine is addictive; (4) to deceive consumers into becoming or staying addicted to cigarettes by manipulating the design of cigarettes and the delivery of nicotine to smokers, while at the same time denying that they engaged in such manipulation; and (5) to deceive consumers, particularly parents and children, by claiming that they did not market to

children, while engaging in marketing and advertising with the intent of addicting children into becoming lifetime smokers; (6) to deceive consumers through deceptive marketing to exploit smokers' desire for less hazardous and "low tar" cigarettes; and (7) to deceive consumers regarding defendants' concerted efforts not to make less hazardous cigarettes.

A. Adverse Health Effects

(1) Cigarette Smoking, Including Exposure to Secondhand Smoke, Causes Disease and Death

2. Cigarette smoking and exposure to secondhand smoke (also known as environmental tobacco smoke or "ETS") kills nearly 440,000 Americans every year. The annual number of deaths due to cigarette smoking is substantially greater than the annual number of deaths due to illegal drug use, alcohol consumption, automobile accidents, fires, homicides, suicides, and AIDS combined. Approximately one out of every five deaths that occur in the United States is caused by cigarette smoking.

3. Lung cancer is the leading cause of cancer death in the United States and in the world. Ninety percent of all lung cancer cases are caused by cigarette smoking. Lung cancer death rates are directly related to smoking rates. Put simply, the most straightforward way to prevent lung cancer would be to eliminate tobacco smoking. Effective tobacco control measures could substantially reduce the incidence of and mortality caused by lung cancer.

4. Lung cancer kills more Americans than breast cancer, colorectal cancer, prostate cancer and ovarian cancer combined. In 2001, there were 169,500 new cases of lung cancer in the United States.

5. Tobacco smoke contains multiple carcinogens and noxious substances that

produce inflammation and genetic changes in the bronchial epithelium early after exposure. The genetic changes caused by exposure to tobacco smoke accumulate with continued smoke exposure, and most genetic changes are not reversible after cigarette smoking cessation.

6. Because genetic changes caused by exposure to tobacco smoke accumulate with continued smoke exposure and most genetic changes are not reversible after cigarette smoking cessation, the risk of developing lung cancer declines very slowly after smoking cessation and remains elevated even after twenty years after quitting. Individuals smoking ten to twenty cigarettes per day have a 10-fold increased risk and individuals smoking forty or more cigarettes per day – two packs and over – have more than a 20-fold increased risk in developing lung cancer.

7. There are no proven methods for the early detection of lung cancer through routine screening methods. Consequently, less than 25% of patients have their lung cancer detected with stage I or II disease, the only stages curable by surgical resection. The overall cure rate for lung cancer remains less than 15%.

8. Cigarette smoking causes atherosclerosis.
9. Cigarette smoking causes bladder cancer.
10. Cigarette smoking causes cerebrovascular disease.
11. Cigarette smoking causes chronic obstructive pulmonary disease ("COPD").
12. Cigarette smoking, including exposure to secondhand smoke, causes cardiovascular disease, including myocardial infarction and coronary heart disease.
13. Cigarette smoking causes esophageal cancer.

14. Cigarette smoking causes kidney cancer.
15. Cigarette smoking causes laryngeal cancer.
16. Cigarette smoking causes oral cancer.
17. Cigarette smoking causes pancreatic cancer.
18. Cigarette smoking causes peptic ulcer disease.
19. Cigarette smoking causes respiratory morbidity.
20. Cigarette smoking causes diminished health status.
21. Prenatal and neonatal exposure to cigarette smoke causes sudden infant death syndrome ("SIDS"), otitis media, and cognitive and behavioral difficulties.

(2) The Link Between Smoking and Lung Cancer Was Scientifically Established by the Early 1950s

22. By the middle of the twentieth century, physicians and public health officials in the United States had widely noted an alarming increase in numbers of cases of lung cancer. Virtually unknown as a cause of death in 1900, by 1935 there were an estimated 4,000 deaths annually. A decade later, such estimates had nearly tripled.

23. The rise in lung cancers had followed the dramatic increase in cigarette consumption beginning early in the twentieth century. Annual per capita consumption of cigarettes in 1900 stood at approximately forty-nine cigarettes; by 1930, annual per capita consumption was over 1,300; by 1950 it was over 3,000. Even though the increases in lung cancer cases and deaths substantially lagged this increase in cigarette use, the apparent association led to considerable speculation about this relationship.

24. The dangers of smoking, including its connection to lung cancer, began to attract

more concerted attention of scientists in the 1920s, when researchers began to focus on the specific health consequences of smoking.

25. As early as 1928, researchers conducting a large field study associated heavy smoking with cancer.

26. Thereafter, in 1931, Frederick L. Hoffman, a well-known statistician for the Prudential Insurance Company, tied smoking to cancer. Hoffman assessed the basic methodological questions of such research: issues of representativeness, sample size, and the construction of control groups. All presented researchers with a series of complex problems, problems which they were aware of and began to find ways to resolve.

27. In the 1930s, investigators were already concerned enough to warn in peer reviewed scientific and medical publications of the potential dangers of smoking.

28. Initial research efforts led to publication of the first case control study that showed the connection between smoking and lung cancer in Germany in 1939.

29. Beginning in the 1940s, researchers began to devise studies that would directly address and resolve the persistent and increasingly important questions concerning the harms of cigarette smoking.

30. At the end of 1940s, more evidence linking smoking to disease began to appear. Beginning in 1948, under the auspices of the Medical Research Council, a unit of the recently created National Health Service in the United Kingdom, Bradford Hill and Richard Doll conducted a study to investigate the rising incidence of lung cancer. They realized that questions concerning the causality of systemic chronic diseases would not readily succumb to experimental

laboratory investigation. Nonetheless, the timeliness and public health significance of these questions demanded immediate attention and the development of new knowledge.

31. Following World War I, Hill had become one of the most distinguished medical statisticians in Great Britain. Doll, a physician, also possessed sophisticated training in statistics and epidemiologic methods.

32. As their data from lung cancer patients and a control group came in late 1948 and early 1949, it became clear to Doll and Hill that cigarettes were the crucial factor in the rise of lung cancer. With data on almost 650 lung cancer patients, they concluded that they had in fact found cause and effect. The findings were impressive: among the 647 lung cancer patients entered into Doll and Hill's study, all 647 were smokers. They waited to publicize their results, however, until they had data on 1400 lung cancer patients, further strengthening their conclusions.

33. In the early 1950s, Doll and Hill understood that some critics might dismiss findings linking smoking to disease (as Defendants did) as "merely" statistical. As a result, they meticulously described the specific criteria that they required before an "association" could be identified as a genuine causal relationship. First, they worked to eliminate the possibility of bias in the selection of patients and controls, as well as in reporting and recording their histories. Second, they emphasized the significance of a clear temporal relationship between exposure and subsequent development of disease. Finally, they sought to rule out any other factors that might distinguish controls from patients with disease. This explicit search for possible "confounders" and their elimination marked a critical aspect of their arrival at a causal conclusion. They

insisted on carefully addressing all possible criticisms and all alternative explanations for their findings. In this respect, Doll and Hill and the other epidemiologic investigators expressed a strong commitment to inductive science, hypothesis-testing, and scientific method:

"Consideration has been given to the possibility that the results could have been produced by the selection of an unsuitable group of control patients, by patients with respiratory disease exaggerating their smoking habits, or by bias on the part of the interviewers. Reasons are given for excluding all these possibilities, and it is concluded that smoking is an important factor in the cause of carcinoma of the lung."

34. Noted historian Charles Webster observed of the first Doll and Hill paper, published in 1950: "This modest paper is now regarded as a classic. From these findings emerged the realization that smoking has been responsible for as many deaths per annum as were claimed by the great cholera epidemics of the nineteenth century. Smoking was thus established as a major cause of preventable disease."

35. Two years later, in a 1952 follow-up report, Doll and Hill offered additional evidence for sustaining their conclusion, again fully considering alternative explanations:

We have now extended the investigation to other parts of the country and have made more detailed inquiries into smoking habits. The present analysis of nearly 1,500 cases, or more than double the number dealt with in our preliminary report, supports the conclusion then reached and has revealed no alternative explanation – for example, in the use of petrol lighters. It has been suggested that subjects with a particular physical constitution may be prone to develop (a) the habit of smoking and (b) carcinoma of the lung, and that the association might therefore be indirect rather than causal (Parnell, 1951). We know of no evidence of such a physical constitution

characteristic of patients with lung carcinoma. If it does exist we should still have to find some environmental factor to account for the increased incidence of the disease in recent years.

36. Other researchers studied the connection between smoking and lung cancer during the same time period. In 1949, Evarts Graham, a leading surgeon at Barnes Hospital in St. Louis, and Ernst Wynder, a medical student at Washington University, designed and implemented a study to directly address and resolve the persistent and increasingly important questions concerning the possible harms of cigarette smoking. Graham, a nationally known surgeon who had performed the first pneumonectomy, was a heavy smoker himself and skeptical of the cigarette-lung cancer hypothesis. He initially had speculated that, if smoking was a cause of lung cancer, it would occur more bilaterally (rather than in a single lobe). Wynder and Graham collected extensive data on a group of 684 patients with lung cancer located in hospitals throughout the U.S. These patients were extensively interviewed about their smoking levels and histories. Histological exams confirmed the diagnosis in all cases. This group was then compared to a "control group" of non-smokers, similar in age and other demographic characteristics. Wynder and Graham explained, "The temptation is strong to incriminate excessive smoking, and in particular cigarette smoking over a long period as at least one important factor in the striking increase of bronchogenic carcinoma." They offered four reasons to support this conclusion. First, it was very unusual to find lung cancers among non-smokers. Second, among patients with lung cancer, cigarette use tended to be high. Third, the distribution of lung cancer among men and women matched the ratio of smoking patterns by gender. And finally, "the enormous increase in the sale of cigarettes in this country approximately parallels the

increase in bronchogenic carcinoma." These results were reported in the Journal of the American Medical Association, a prestigious peer reviewed journal, on May 27, 1950.

37. Also included in that 1950 issue of the Journal of the American Medical Association was another investigation reaching similar conclusions by Morton Levin, et al. In his commentary on research into the connection between cigarettes and lung cancer, Levin compared the current epidemiological research on cigarette smoking to research on the smoking/lung cancer connection done in the preceding 20 years, arguing that the past work was "inconclusive because of lack of adequate samples, lack of random selection, lack of proper controls or failure to age-standardize the data." In the case of the data gathered for his study, careful attention to "excluding bias" had been central: "in a hospital population, cancer of the lung occurs more than twice as frequently among those who have smoked cigarets for twenty-five years than among other smokers or nonsmokers of comparable age."

38. By the 1950s, animal research was also pointing to the carcinogenicity of cigarettes. Wynder and Graham turned their attention to the question of the "biological plausibility" of their epidemiological findings. In conducting animal investigations, Wynder reasoned that if tumors could be produced in animal models, it would be an important step in confirming the early epidemiologic findings. Noting that smoke condensates, also known as tars, contained benzpyrenes, arsenic and other known carcinogens, he painted the backs of mice to evaluate their effects. Fifty-eight percent of the mice developed cancerous tumors. Wynder concluded that "the suspected human carcinogen has thus been proven to be a carcinogen for a laboratory animal." These findings were reported in Cancer Research in December 1953.

39. By late 1953 there had been at least five published epidemiologic investigations, as well as others pursuing carcinogenic components in tobacco smoke and its impacts. These researchers had come to a categorical understanding of the link between smoking and lung cancer. This understanding was markedly more certain than the case studies and preliminary statistical findings earlier in the century. While some of the epidemiological methods were innovative, the scientists using them were careful to approach them in a thorough manner; these methods were completely consistent with established scientific procedure and process. And epidemiology was not only based on statistics, but instead was an interdisciplinary, applied field. The studies had substantially transformed the scientific knowledge base concerning the harms of cigarette use. Unlike earlier anecdotal and clinical assessments, these studies offered new and pathbreaking approaches to investigating and resolving causal relationships.

40. Medical historians would come to view these studies as among the most important contributions to public health and medicine in the twentieth century. They offered a sophisticated scientific methodology for resolving central questions of causality.

41. In addition, surgeons and pathologists published clinical reports associating cancer in their patients with their smoking habits. In 1957, Oscar Auerbach and colleagues first reported in the New England Journal of Medicine on "Changes in the Bronchial Epithelium in Relation to Smoking and Cancer of the Lung." Auerbach's study evaluated patients who died and were autopsied with confirmed smoking histories. Microscopists were kept ignorant of the smoking histories in the 30,000 examinations that they made to assure against potential bias. Auerbach et al. concluded: "These findings are fully consistent with the hypothesis that inhalants

of one sort or another are important factors in the causation of bronchogenic carcinoma. The findings are also consistent with the theory that cigarette smoking is an important factor in the causation of bronchogenic carcinoma." Auerbach presented additional confirmatory findings in 1961 and 1979.

42. Such studies underscored and strengthened the epidemiological findings. To say that the evidence demonstrating a causal relationship between smoking and lung cancer was based exclusively on statistical data – as Defendants claimed for over forty years – was to fundamentally misrepresent the emerging scientific knowledge.

(3) The Scientific Evidence Establishing Smoking as a Cause of Lung Cancer Led to Concerted Action by the Cigarette Company Defendants

43. By 1953-1954, tobacco company executives were aware both of these findings and the public attention they were receiving. They well understood that this new scientific evidence constituted a full-scale crisis for their respective companies.

44. As epidemiological studies establishing the link between cigarette smoking and cancer appeared, the Cigarette Company Defendants engaged in advertising campaigns to induce the public to believe that cigarette smoking was actually beneficial to one's health.

45. While continuing to insist that there was no indication that cigarettes were unsafe, the industry moved aggressively to market products which they subtly and not-so-subtly implied were safer. In 1953, Defendant Liggett hired Arthur D. Little to test tobacco condensates on mice in an attempt to develop strategies for removing carcinogens, at the same time that it advertised its filters as "Just What the Doctor Ordered."

46. In a November 26, 1953 press release denying a link between smoking and lung cancer, Paul Hahn, President of Defendant American Tobacco Company, stated: "Believing as we do that cigarette smoking is not injurious to health, I feel that a statement of reassurance to the public should be made. What the public wants to know about is whether it is true that smoking has been proved to contribute to the incidence of lung cancer. The fact, of course, is that it has not been so proved."

47. In late 1953, Hahn sent telegrams to the presidents of the seven other major tobacco companies and one tobacco growers organization, inviting them to meet and develop an industry response to counter the negative publicity generated by the studies that indicated a relationship between cigarette smoking and lung cancer. See Section I.B above.

48. The tobacco executives had agreed to meet with John Hill of the New York public relations firm Hill & Knowlton in order to consider how best to shape their new strategy in this moment of crisis. Hill & Knowlton executives warned their clients that competitive approaches of the past would not work in the current context: "[O]n this problem none is going to seek a competitive advantage by inferring to its public that its product is less risky than others."

49. The purpose of Hahn's December 1953 meetings of all the Cigarette Company Defendants, except Philip Morris Companies, Liggett, and BATCo (its then-subsiidiary, B&W, participated) was to develop a collaborative public relations plan in response to the scientific evidence concerning the harms of cigarette use. When they met together at the Plaza Hotel in New York City, it marked the first time since 1939 that the group had come together. Their fear that working together would be perceived as an anti-trust violation was outweighed by their

major concern over the threat to the industry as a whole from public reactions to the emerging scientific findings.

50. T.V. Hartnett, President of Brown & Williamson, summarized the crisis of the industry in December 1953 in the following terms: "But cancer research, while certainly getting our support, can be only half an answer. . . . The other side of the coin is public relations . . . [which] is basically a selling tool and the most astute selling may well be needed to get the industry out of this hole. It isn't exaggeration that no public relations expert has ever been handed so real and yet so delicate a multi-million dollar problem. Finally, one of the roughest hurdles which must be anticipated is how to handle significantly negative research results, if, as, and when they develop."

51. The tobacco executives sought to create a "Tobacco Industry Committee for Public Information," to publicize health information and to preserve their public image. Hill, however, expressed skepticism that a public relations strategy that simply argued that the harms of cigarette smoking were "unproven" would succeed. Such a campaign, it was suggested, might appear self-interested in the face of the serious health concerns being raised. As a result, Hill suggested that the industry should sponsor new research. Thus he advocated instead a "Tobacco Industry Research Committee" ("TIRC"). Hill & Knowlton, who came to direct the day-to-day operations of the TIRC, assessed their clients' problems in the following manner in an initial assessment:

There is only one problem – confidence, and how to establish it; public assurance, and how to create it – in a perhaps long interim when scientific doubts must remain. And, most important, how to free millions of Americans from the guilty fear that is going to arise deep in their

biological depths – regardless of any pooh-poohing logic – every time they light a cigarette. No resort to mere logic ever cured panic yet, whether on Madison Avenue, Main Street, or in a psychologist's office. And no mere recitation of arguments pro, or ignoring of arguments con, or careful balancing of the two together, is going to deal with such fear now. That, gentlemen, is the nature of the unexampled challenge to this office.

52. Beginning in January 1954, the newly created TIRC would take the lead in forging the industry's response to the scientific evidence of tobacco's harms. That month, American, Brown & Williamson, Lorillard, Philip Morris, and R.J. Reynolds, along with other tobacco industry entities, published "A Frank Statement to Cigarette Smokers" (drafted by Hill & Knowlton executives), an advertisement which appeared in 448 newspapers in 258 cities. The Frank Statement, as an act of public relations, fit well with the essential strategy articulated above. It reassured smokers, and it promised them that the industry was absolutely committed to their good health. Such reassurances became characteristic even as the scientific evidence indicting cigarettes grew in strength, sophistication, and professional acceptance.

The statement announced:

We accept an interest in people's health as a basic responsibility, paramount to every other consideration in our business.

We believe the products we make are not injurious to health.

We always have and always will cooperate closely with those whose task it is to safeguard the public health.

53. Announcing the creation of TIRC, the "Frank Statement" explained:

We are pledging aid and assistance to the research effort into all phases of tobacco use and health. This joint financial aid will of course be in addition to what is already being contributed by individual companies.

54. At the same time that Defendants made this public pledge in the Frank Statement,

it established a sophisticated public relations apparatus in the form of TIRC – based on the "cover" of conducting research – to deny the harms of smoking and reassure the public. Once the essential strategy of generating controversy surrounding the scientific findings linking smoking to disease was organized and implemented in 1953-54, the industry's approach was unwavering for five decades.

55. Upon retirement from Brown & Williamson, Hartnett became the first Chief Executive Officer of TIRC in 1954. In the press release announcing his appointment, Hartnett explained:

It is an obligation of the Tobacco Institute Research Committee at this time to remind the public of these essential points: 1. There is no conclusive scientific proof of a link between smoking and cancer. 2. Medical research points to many possible causes of cancer. . . . 5. The millions of people who derive pleasure and satisfaction from smoking can be reassured that every scientific means will be used to get all the facts as soon as possible.

56. From the outset, the dual functions of TIRC, public relations and scientific research, were intertwined. In reality, the scientific program of TIRC was always subservient to the goals of public relations.

57. Rather than carefully and critically assessing the emerging scientific data concerning the harms of smoking, TIRC took the lead in denying and distorting these harms.

58. Instead of "getting all the facts" in a timely way, TIRC focused its energies and resources in two areas: (1) it served as a public relations unit for the industry, especially in relation to growing public concerns about the risk of smoking, repeatedly attacked scientific studies demonstrating the harms of cigarette smoke and worked concertedly to reassure smokers

about cigarettes; and (2) it developed a research program that focused on basic science mechanisms in cancers that was distant if not completely irrelevant to evaluating the risks and harms associated with smoking. Indeed, the TIRC research program was organized and devised to not address the immediate and fundamental questions of the health effects of smoking. In this way, both functions of TIRC (public relations and research) were integrally related; both were fully committed to the goals of denying and discrediting the substantial scientific evidence of smoking's harms and reassuring the public (especially smokers and potential smokers) through promotion of the image that a genuine scientific controversy existed about whether smoking caused disease.

59. Thus, while Defendants maintained a public posture of protecting consumers, privately they were working hard to avoid any indication that they might believe that cigarettes could be harmful. Despite quite candid internal assessments, company executives continued to offer blanket reassurances to consumers and stockholders. From 1954 on, they relied on citing the program of TIRC as proof of their commitment to seeking definitive answers to the questions of smoking and health.

60. In spite of the growing scientific evidence linking cigarettes to lung cancer and other diseases, Defendants continued to offer reassurances like the following 1954 Annual

Report of R.J. Reynolds:

Many eminent medical authorities have stated that claims made as to a possible causal relationship between smoking and lung cancer are lacking in any real proof. Very little is known as to the true cause or causes of any cancer, and it is to be hoped that research financed by the Committee [TIRC] will aid medical science in discovering the cause.

61. Representatives of Hill & Knowlton attended Scientific Advisory Board ("SAB") meetings of TIRC from 1954 to 1964, as did company lawyers. Anything but an organization committed to funding research into the health effects of cigarette use, TIRC instead proved to be a sophisticated public relations and legal tool of the tobacco industry. Rather than funding research to clarify the relationship of tobacco and health as it promised, TIRC oriented itself from its inception as an organization to bring "balance" – i.e., Defendants' perspective – to the smoking and health debate.

62. The first Scientific Director of TIRC, appointed in 1954, was biologist Clarence Cook Little. Little's personal commitments and a priori assumptions about cancer causality made him an ideal proponent of the industry's goal of maintaining a "controversy" rather than scientifically resolving the questions regarding smoking and health. A former president of University of Maine, University of Michigan, and the founder of the Roscoe B. Jackson Memorial Laboratory, Little quickly became a steadfast critic of the emerging scientific data linking cigarettes to cancer.

63. On June 15, 1954, Little publicly emphasized the purported purpose of the newly formed organization during a press conference when he stated that TIRC was "trying to find out the facts."

64. Little had no compunction about offering unsubstantiated claims about the health benefits of cigarette use: "It is very well-known, for example, that tobacco has relaxed a great many people. It is a very good therapy for a great many nervous people."

65. A confidential report of a TIRC meeting held October 19, 1954, made explicit

Little's and Defendants' agenda: "He [Little] declared that both he and the members of the board were aware of the attacks which had been made on tobacco for over 200 years, and wished to build a foundation of research sufficiently strong to arrest continuing or future attacks."

66. Little tended to castigate as moralists those whose findings showed harms with tobacco use:

The right of an individual to determine his own level or threshold of convincibility is unquestioned. . . . There are and will always be individuals who are convinced without the need of experimental evidence that all tobacco in any form is evil, noxious and toxic. There are individuals with a similar attitude toward alcohol, coffee, and the use of drugs, sera or medicines.

Such assumptions stimulated some investigators to begin an enthusiastic hunt for the 'component' or 'components' in tobacco smoke that can be blamed for the unproved cause-and-effect relationship as well as for the reported production of skin cancer in some experiments with certain strains of laboratory mice.

67. Little continually called for more research:

In the active and continuing discussions about tobacco use and health, there seems to be nearly complete agreement among scientists on only one point: The need for much more intensive research into the subject.

68. Under Little's leadership, the major thrust of TIRC was to emphasize that human cancers were complex processes, difficult to study, and difficult to understand. Little directed TIRC towards what he called "pioneer research." He claimed that studies focused on cigarettes could "stifle or delay needed research to find the basic origins of lung cancer or cardiovascular diseases, which are most powerful, diversified and deadly enemies to our well-being."

69. TIRC never developed an approach to carcinogenesis and tobacco that could resolve the question of the harms induced by cigarette smoking. Although some researchers

explored alternative hypotheses, TIRC did not pursue direct research on cigarettes and disease. Rather than directly addressing the constituents in tobacco smoke and their demonstrated effect on the human body, TIRC directed the predominance of its resources to alternative theories of the origins of cancer centering on genetic factors and environmental risks. Most research projects funded through TIRC's SAB were irrelevant to the immediate questions of the harms of tobacco. At the same time, Little and TIRC used truisms such as the "need for more research," and "how much more there is to learn" to deflect attention away from what was known.

70. Little also argued that there were no known carcinogens in tobacco tars (this despite Defendants' clear knowledge to the contrary). He repeatedly centered attention on the so-called "constitutional hypothesis", other environmental risks, and the need for more research:

Too little is known about many factors, including why people smoke or what kind of people become particularly heavy smokers.

The problem of causation of any type of cancer is complex and difficult to analyze. All research on this so-called constitutional disease is, and must be, painstaking and time consuming. There is not known today any simple or quick way to answer the question of whether any one factor has a role in causing human lung cancer.

Despite all the attention given to smoking as an accused factor in human lung cancer, no one has established that cigarette smoke, or any one of its known constituents, is cancer-causing to man.

- (a) Upon Formation of the Enterprise, Defendants' Decades-Long Campaign of Misinformation Began with False Statements about the Health Risks of Smoking in the 1950s

71. TIRC and the Cigarette Company Defendants, and later the Tobacco Institute and TIRC's successor, the Council for Tobacco Research–USA, Inc. ("CTR"), issued numerous false public statements, similar to those of Little, designed to mislead the public about the connection

between cigarette smoking and disease. The public campaign of misinformation was undertaken with reckless disregard for the truth of the assertions – its sole purpose was to mislead.

72. In March 1954 in a public speech to the National Association of Tobacco Distributors, George Weissman, a Vice President with Defendant Philip Morris, reiterated Defendants' public position that medical evidence had not established the link between smoking and disease:

For never in the history of American industry – a history that not so incidentally had its origins in tobacco – has one industry been under attack as we are today, never has an industry's very existence been so dependent on its relations with the public. Which brings me to another, and even more important current problem! – the current medical propaganda being directed against the cigarette industry by a small number of doctors and a large number of magazines, and newspapers. As many, if not more, distinguished scientists have disputed the arbitrary statements of the few doctors. As many, if not more, distinguished researchers, have pointed out other factors such as air pollution rather than cigarette smoking. There are many scientists who question the statistics and even doubt the fact that there is a health question involved in cigarette smoking. Yet, who rated the headlines when the charges were made? Unfortunately, the cigarette industry. Where were the denials and counterclaims? You sometimes had to use a microscope to find them. . . . If we had any thought or knowledge that in any way we were selling a product harmful to consumers, we would stop business tomorrow.

73. On April 14, 1954, TIRC published "A Scientific Perspective on the Cigarette Controversy," which restated the Frank Statement's false pronouncement that the Cigarette Company Defendants had accepted "an interest in people's health as a basic responsibility, paramount to every other consideration in our business." A total of 205,000 copies were printed and sent to 176,800 doctors, general practitioners and specialists. It was also sent to the deans of medical and dental colleges. The book and an accompanying press release went to a press

distribution of 15,000, including editors of daily and weekly newspapers, consumer magazines, veterans magazines, and medical and dental journals, news syndicate managers, business editors, editorial writers, science writers, radio and TV commentators, news columnists, and Members of Congress. The Sunday New York Daily News (circulation 3,800,000) gave feature treatment to the booklet, devoting a major part of the page to comment and a cartoon. The story was also sent to some 1,400 radio stations.

74. On October 12, 1954, in newspapers such as the New York Daily Mirror, Timothy Hartnett, Chairman of TIRC, was quoted as saying that "no clinical evidence has yet established tobacco to be the cause of human cancer."

75. On November 24, 1954, the Richmond Times-Dispatch quoted E.A. Darr, President of R.J. Reynolds, as stating that there still was not a "single shred of substantial evidence" linking cigarette smoking and lung cancer directly.

76. In a December 27, 1954 statement by TIRC, the Cigarette Company Defendants promised not only to conduct research, but to make their findings known to the public.

77. In a December 30, 1954 letter to employees, R.J. Reynolds's President and Chairman laid out how TIRC would perpetuate the "open controversy" on smoking and health:

There have been countless claims and denials developing around lung cancer and cigarette smoking. We want you to know our thoughts about this situation We think these unfounded and totally unproved claims will have less effect in 1955, because the public is realizing that there has not been any real proof of the relationship Of course, we are concerned about these unfounded claims, but the lack of fair play is also of concern. Most of the claims are based on statistics, and it is the dishonesty in the use of figures that surprises us. They say more cigarettes, more lung cancer. On this basis, they could say that lung cancer is increasing because there are more oil furnaces, more diesel engines, and increasing number of

automobiles, and so on. You can prove anything by statistics if you are willing to use just a part of all the facts. We feel, as we know you do, that any disease like cancer deserves the most comprehensive and thorough scientific research. In an effort to get the facts, your company and certain others in the tobacco industry formed the Tobacco Industry Research Committee late in 1953. . . . These men are going after the facts with the assurance of absolute scientific freedom in all phases of their work.

78. By the end of 1954, the Cigarette Company Defendants created the appearance of legitimate controversy among scientists by funding and publicizing studies specifically tailored to discredit independent studies that established causation or established a link between smoking and ill health. This was accomplished mainly through TIRC.

79. Little, TIRC's Scientific Director, noted that one year after the Frank Statement was published, "There is clear evidence that the phase of uncontrolled fear and emotional speculation created by the original premature and over-balanced statement of the American Cancer Society, is rapidly passing." Little described how reactions obtained from "contacts with individuals" showed "instead of a general skepticism concerning the aims and motives of the tobacco industry, one finds now only scattered and isolated examples of that unfriendly attitude." This change in attitude was a reflection of "the general trust which the American people have begun to place in our efforts."

80. Defendants made many false statements in furtherance of the goals of the Enterprise through publications. The Tobacco Information Committee, a TIRC subcommittee published the "Tobacco and Health" newsletter on behalf of Defendants. The first issue, published in October 1957, contained many articles that disputed the relationship between smoking and disease, criticized research that supported such a relationship, and asserted that

differing opinions existed regarding tobacco use and health.

81. Subsequent issues of "Tobacco and Health," published by the Tobacco Institute, likewise contained articles that disputed the relationship between smoking and disease, criticized research that supported the relationship, and asserted that differing opinions existed regarding tobacco use and health. The newsletter that was sent periodically to the medical and scientific communities. It reached a circulation of 520,000 in 1962, with about 315,000 copies going to doctors, dentists, and medical schools. Publication of research results helped "make news" and was coordinated with other publicity efforts. The newsletter carried articles relating to tobacco and health and materials that did not deal with tobacco, which suggested other causes of cancer, such as viruses, air pollution, or previous chest ailments. The admitted purpose of the publication was to rebut and discredit the charges against tobacco.

82. Internal communications make it clear that the goal was to steer attention away from anything that might support the link between smoking and cancer. An October 18, 1968 memo from Hill & Knowlton to the Tobacco Institute's head of public relations advised: "The most important type of story is that which casts doubt on the cause and effect theory of disease and smoking."

83. Public statements and press releases were released and promoted regularly. In a May 27, 1957 speech, George Weissman of Philip Morris falsely stated that "there is not one shred of conclusive evidence to support the link between cigarette smoking and lung cancer."

84. In 1957, after the American Cancer Society released figures from epidemiological study showing that quitting smoking lowered one's risk, that death rates from lung cancer were

ten times higher than for men who never smoked, and that the primary danger of smoking, in terms of average years of life lost, was from heart disease, Defendants responded with formulaic dismissals, arguing that smoking had never been conclusively linked with any kind of disease. A June 4, 1957, TIRC press release, for example, quoted TIRC Chairman Hartnett as asserting that "the causes of cancer and heart disease are not yet known to medical science." The New York Times picked up the release and published it in its entirety, including this same quote from Hartnett. The Atlanta Constitution cited the TIRC's assertion that Hammond and Horn's new study, "like their previous reports, does nothing to change this fact." The Chicago Daily Tribune and many other newspapers carried these rebuffs from the TIRC, which by this time was also boasting of its support for research ("at 16 centers") while in fact doing nothing to honestly explore the growing mountain of evidence indicating hazards.

85. TIRC issued a July 15, 1957 press release entitled "Scientist Comments on Benzopyrene Report" where it not only disputed the United States Surgeon General's report that benzopyrene had been identified in cigarette smoke, and stated that scientists had concluded that benzopyrene in cigarette smoke cannot be a cause of cancer in smokers.

86. A December 16, 1957 press release from TIRC stated that "no substance has been found in tobacco smoke known to cause cancer."

87. On June 27, 1958, Bowman Gray, President of R.J. Reynolds, told a meeting of the Flue-Cured Tobacco Co-operative Stabilization Corp.:

The theory that tobacco smoking is a factor in lung cancer causation rests almost entirely on statistical observations. These are chiefly that there are more smokers among lung cancer patients than among other patients and that a higher proportion of lung cancer seems to appear among smokers

than among non-smokers. The statement that a mere statistical association is neither proof nor good evidence of a cause and effect relationship has been asserted so often by so many scientists that it sounds almost like a broken phonograph record. Nevertheless, it remains as true and significant as ever. . . . Yet, assiduous search by these methods has failed to identify sufficient quantity of any substance that could account for even the relatively infrequent results obtained by painting on skins of mice. Additionally, there is the fact that all tobacco smoke inhalation studies, conducted with different species of animals over a period of several years, have consistently failed to produce any bronchogenic carcinoma – the type of lung cancer most frequently found in human beings.

88. With the rising popularity of filters, Defendants found themselves in a delicate position of seeking to promote these new products as safer without explicitly indicating health problems with their previous products. They continued to insist that the rise of filter cigarettes merely reflected the nature of consumer demand. James P. Richards, President of the Tobacco Institute, explained on June 30, 1958:

The cigarette industry has not changed its mind. Our position was and is based on the fact that scientific evidence does not support the theory that there is anything in cigaret smoke known to cause human lung cancer. . . . [T]he production and marketing of filter cigarets are matters of individual company competitive business. Anyone familiar with the tobacco industry knows that tobacco manufacturers constantly compete to make products to please customers.

89. In a newspaper article published on November 19, 1958, Little was quoted as saying that there was scant clear evidence that smoking caused lung cancer, much more research was needed, and TIRC would continue to provide funds for independent research in universities and hospitals until the final answers were obtained.

90. In a December 27, 1958 public statement, Hartnett, still TIRC's Chairman, emphasized that links to smoking and disease remained undetermined and asserted that an

increasing number of factors were being associated statistically with lung cancer incidents. He cited occupational exposures, specific air pollutants, place of birth and residence, previous lung ailments, and nutrition, claiming that these factors and others were subjects of much scientific investigation and further claiming that "at its formation in January 1954, the Tobacco Industry Research Committee stated its fundamental position: we believe the products we make are not injurious to health. We are pledging aid and assistance to the research effort and to all phases of tobacco use and health. That statement and pledge are reaffirmed by the members of the Tobacco Industry Research Committee."

(b) Defendants Knew Their Public Statements Were False and Engaged in Their Campaign of Public Misinformation Pursuant to Their Agreed-Upon Strategy with Reckless Disregard for Its Truth or Falsity

91. The public statements issued through organizations like TIRC and its successor, CTR, as well as the Tobacco Institute and the Center for Indoor Air Research ("CIAR"), and also by the Cigarette Company Defendants themselves, were flatly inconsistent with Defendants' actual knowledge about the link between smoking and disease.

92. At the same time that the Defendants assured the public through their "Frank Statement" that "there is no proof that cigarette smoking is one of the causes [of cancer]," they documented a large number of known carcinogens delivered in cigarette smoke.

93. During the 1950s, although the Cigarette Company Defendants (except for Liggett) agreed not to perform in-house biological research that might yield evidence of causation, in fact a number of studies were conducted to discover and analyze the constituents

found in cigarette smoke, including successful attempts to replicate Wynder's experiments painting mice with tar condensates.

94. Although the presidents of Brown & Williamson and R.J. Reynolds signed the 1954 Frank Statement, internal documents at both companies were inconsistent with the public position taken. A December 24, 1952 "Report of Progress – Technical Research Department" from B&W contained a "Cancer" section, which noted: "The B&W lab has in the past made a partial isolation and identification of the aromatic hydrocarbons, benzopyrene, in both smoke and original tobacco from Raleigh blend cigarettes." The report refers to benzopyrene as a "carcinogenic hydrocarbon."

95. R.J. Reynolds also knew that smoking was a causal factor for disease as early as 1953. R.J. Reynolds's knowledge is documented in a February 1953 Report drafted by Claude Teague, an R.J. Reynolds research scientist, entitled "Survey of Cancer Research with Emphasis on Possible Carcinogens from Tobacco," which stated: "On the basis of the information at hand, it would appear that polynuclear aromatic compounds occur in the pyrolytic products of tobacco. Bensusprene and 'N-bensusprene[sic], both carcinogens, were identified in the distillates. . . . Studies of clinical data tend to confirm the relationship between heavy and prolonged tobacco smoking and incidence of cancer of the lung." Teague further acknowledged: "Some workers have attempted to produce experimental cancers in test animals by application of tars obtained from tobacco, tobacco smoke, and other materials derived from tobacco."

96. Alan Rodgman, a scientist at R.J. Reynolds, drew similar conclusions in 1956. He wrote an extensive paper on "The Analysis of Cigarette Smoke Condensate." In it, Rodgman

explained:

The research described in this report represents a concerted effort to determine whether or not the polycyclic aromatic hydrocarbons are present in cigarette smoke condensate. One of the major objections offered to previous investigations is that the identification of specific compounds solely on the basis of ultraviolet absorption studies is not definitive. Since the present research describes the actual isolation, identification, and characterization of several polycyclic aromatic hydrocarbons, including the highly carcinogenic 3, 4-benzpyrene, the major criticism of past research are now nullified.

Rodgman further wrote of the studies undertaken using standard Camel cigarettes:

In view of this data, it is logical to assume that the carcinogenic activity of cigarette smoke condensate is due to the presence of one or more carcinogenic polycyclic aromatic hydrocarbons.

Since it is now well-established that cigarette smoke does contain several polycyclic aromatic hydrocarbons, and considering the potential and actual carcinogenic activity of a number of these compounds, a method of either complete removal or almost complete removal of these compounds from smoke is required.

97. In 1959, Rodgman summarized his current research on known carcinogens in cigarettes in a memorandum sent to R.J. Reynolds executive Kenneth H. Hoover:

Some thirty-odd polycyclic hydrocarbons have since been similarly characterized in these laboratories. Of these eight are carcinogenic to mouse epidermis. Cholanthrene, a potent carcinogen, is one of three not yet reported by other investigators. In April of 1959, the first positive isolation and identification of 3, 4 benzpyrene, citing data similar to ours, was reported by other investigators.

98. In 1962, Rodgman offered his assessment of "the smoking and health problem":

Although the major part of the sales of this company consists of cigarettes, what the Company sells is cigarette smoke. This company, therefore, should be concerned with the physiological properties and composition of cigarette smoke. The benefits from such knowledge are obvious,

particularly it anticipates possible governmental regulation. During the past two decades, cigarette smoke has been the target of a host of studies relating it to ill-health and particularly to lung cancer. The majority of these studies incriminate cigarette smoke from a health viewpoint.

Epidemiological data: The results of 34 different statistical studies show that cigarette smoking increases the risk of developing lung cancer. Many authorities believe the relationship to be one of cause-and-effect. . . . The statistical data from the smoking-health studies are almost universally accepted. After more than ten years, criticisms of the studies have been reduced to the dictum A statistical study cannot prove a cause-and-effect relationship between two factors.

Rodgman made explicit that reports within the industry considered the evidence of smoking's harm convincing.

The Evidence to Date: Obviously, the amount of evidence accumulated to indict cigarette smoke as a health hazard is overwhelming. The evidence challenging this indictment is scant. Attempts to shift the blame to other factors, e. g., air pollutants, necessitates acceptance of data similar to those denied in the cigarette smoke case.

It has been repeatedly stated that some scientists discount the cigarette smoke-lung cancer theory. This is true. But it should be noted that many of those quoted in this regard are on record with contrasting views, e. g., Berkson, the statistician, has stated "the definitive important finding of these statistical studies is not that there is an association between smoking and lung cancer, but that there is an association between smoking and deaths from all causes generally.

Rodgman expressed concern and frustration that most aspects of the smoking and health questions had been left to the TIRC. He complained:

If a company plead "Not guilty" or "Not proven" to the charge that cigarette smoke (or one of its constituents) is a factor in the causation of lung cancer or some other disease, can the company justifiably take the position that publication of data pertaining to cigarette smoke composition or properties should be withheld because such data might affect adversely the company's economic status when the company has already implied in its plea that no such etiologic effect exists?

It is not my intent to suggest that this Company accept the cigarette-smoke-health data at face value, but I do suggest that we actively participate in cigarette smoke-health studies.

99. Rodgman's views were consistent with what visiting scientists from the United Kingdom observed in 1958 about researchers working for the Cigarette Company Defendants. While TIRC under Little's leadership never wavered from its essential mission of attempting to maintain "controversy" and an "open question" while avoiding research centered on the potential impact of smoking on health, Defendants' researchers did not necessarily accept this approach. The three British scientists reported widespread acceptance that smoking causes disease among top officials and scientists in the United States tobacco industry, including those at TIRC, Liggett, Philip Morris, and American. They further noted that there was virtual consensus among researchers within the industry that cigarettes played a role in the production of human cancers.

With one exception (H.S.N. Greene) the individuals whom we met believed that smoking causes lung cancer if by 'causation' we mean any chain of events which leads finally to lung cancer and which involves smoking as an indispensable link. In the U.S.A. only Berkson, apparently, is now prepared to doubt the statistical evidence and his reasoning is nowhere thought to be sound.

...In their opinion T.I.R.C. has done little if anything constructive, the constantly re-iterated 'not proven' statements in the face of mounting contrary evidence has thoroughly discredited T.I.R.C., and the S.A.B. of T.I.R.C. is supporting almost without exception projects which are not related directly to smoking and lung cancer. Liggetts [sic] felt that the problem was sufficiently serious to justify large-scale investment by the Company directly in experimental research on smoke and cancer, accepting privately that a strong case against tobacco had been made out and avoiding any public comment until their own research had provided something concrete to offer.

The majority of individuals whom we met accepted that beyond all reasonable doubt cigarette smoke most probably acts as a direct though very weak carcinogen on the human lung. The opinion was given that in view of its chemical composition it would indeed be surprising if cigarette smoke were not carcinogenic. This undoubtedly represents the majority but by no means the unanimous opinion of scientists in U.S.A. These individuals advised us that although it is not possible to predict unambiguously the effect of any substance on man from its effect on experimental animals the generally successful use of animals in other fields as a model for man fully justifies their use in our problem.

100. By 1960, R.J. Reynolds believed that there was a clear, strong, inherent risk from smoking of not only lung cancer, but also emphysema and COPD.

101. Lorillard conducted research which pointed to cigarette smoking as a cause of cancer and other diseases. In the early 1960s, Lorillard conducted in-house experiments on animals that showed ciliastatic effects of tobacco smoke on the respiratory tract.

102. Philip Morris researchers and senior executives knew that cigarette smoking caused disease as early as the 1950's.

103. A July 20, 1956 confidential memo to Philip Morris President and Chief Executive Officer O. Parker McComas, Executive Vice President Joseph F. Cullman, III, and Vice Presidents George Weissman, W.H. Hatcher, and R.N. DuPuis concerning new product designs demonstrated Philip Morris's knowledge that smoking caused disease. In the memo, titled "Confidential memo re: new product advantages for ventilated cigarettes," Philip Morris scientists observed:

Decreased carbon monoxide and nicotine are related to decreased harm to the circulatory system as a result of smoking. . . . [C]arbon dioxide, although non-toxic in small amounts, is a respiratory contaminant, and its reduction in smoking is desirable. . . . [D]eferred irritation is desirable . . . as a partial elimination of a

cancer hazard. Decreased carbon monoxide and nicotine are related to decreased harm to the circulatory system as a result of smoking. . . . [I]ncreased oxygen content, according to the Warbury theory, means less chance of depriving cells of oxygen and of starting a possible chain of events leading to the information of a cancer cell.

104. A July 24, 1958 memorandum written by C. Mace, head of research for Philip Morris, admitted that Philip Morris was aware that smoking was a causal factor for lung cancer. The Mace memorandum described a 1958 memorandum sent by a Philip Morris researcher to the company vice president of research and development – who later became a member of its Board of Directors – stating that "the evidence . . . is building up that heavy cigarette smoking contributes to lung cancer either alone or in association with physical and physiological factors."

105. Dr. Helmut Wakeham, a high ranking Philip Morris scientist, recognized the cancer-causing effect of cigarette smoke in a September 22, 1959 memorandum: "One of the main reasons people smoke is to experience the physiological effects of nicotine on the human system. Nicotine, to the best of present knowledge, does not produce cancer. Hence, in theory one could achieve the major advantage of smoking without the hazard of cancer. But Nicotine in tobacco smoke is present in the tar phase."

106. One Philip Morris report from the late 1950s notes that there were already eleven studies demonstrating "an association between mortality (death) or morbidity (illness) from cardiovascular disease and cigarette smoking." In this same report, summarizing an AHA statement, noted that since coronary disease was "the foremost cause of death in the American population" the number of individuals suffering from this disease would have to be "many

millions." The report noted the "convincing evidence which causally relates cigarette smoking to an obstructive diseases of the arteries" and that "many physicians" believe that "certain patients should not smoke."

107. Wakeham offered a proposal on November 15, 1961, made to the Philip Morris Research & Development Committee in New York, to investigate the possibilities of reducing carcinogens in smoke. The proposal listed fifteen carcinogens, or tumor starters, and twenty-four co-carcinogens, or tumor promoters, in cigarette smoke. Wakeham also cited the belief that "cardiovascular ailments that may arise from smoking are due to the physiological effects of nicotine," noting, in particular, nicotine's "[s]pecific effects on the adrenal medulla, causing it to discharge epinephrine, a hormone which accelerates the heartbeat, contracts the peripheral blood vessels, and raises the blood pressure." Philip Morris identified 84% of the more than 400 gas and particulate compounds in cigarette smoke, including those that he specifically recognized as carcinogens, in sidestream, or secondhand, smoke. Wakeham informed his superiors at Philip Morris that "a medically acceptable low-carcinogen cigarette may be possible," but indicated that it would take "money, time and unfaltering determination."

108. On April 20, 1962, Wakeham recommended diversification of Philip Morris's business at a greater rate due to the evidence that smoking leads to disease.

109. At the very time that Defendants worked in concert to disparage meticulously conducted scientific investigations, their advertisements offered unverifiable reassurances from "medical specialists." At the same time that industry researchers, such as Rodgman of R.J. Reynolds and Wakeham of Philip Morris, were detailing carcinogenic substances in cigarettes

and potential strategies for their removal, TIRC put out a press release asserting: "Chemical tests have not found any substance in tobacco smoke known to cause human cancer or in concentrations sufficient to account for reported skin cancer in animals."

110. Liggett replicated Wynder's mouse-skin painting research and knew that smoke constituents caused carcinogenic tumors.

111. After publication of Wynder's findings and a Rand Development Corporation study detecting carcinogenic compounds in the smoke from ordinary cigarette paper, Liggett hired Arthur D. Little, Inc. ("ADL") to attempt to replicate the results. In a memorandum dated March 15, 1961, ADL summarized:

1. There are biologically active materials present in cigarette tobacco. These are: a) cancer causing b) cancer promoting c) poisonous d) stimulating, pleasurable, and flavorful.
2. There is no reason why the poisonous group, CO, HCN, NO₂, etc., cannot be reduced, even though they are not seen as a primary health hazard. Methods for removal are: a) filtration (treated carbon, etc.) b) treatment for removing precursors, CN elimination c) addition as a reactant (urea for NOs)
3. Cancer promoting materials, esters, phenols, amines, can possibly be reduced by some treatment, extraction, etc.
4. The cancer-causing materials apparently are in many substances that are pyrolyzed but seem to be associated with tobacco in greater concentration than for primarily cellulose.

Liggett and ADL agreed these findings would remain "confidential."

112. A Liggett document prepared on April 24, 1963 accepted inferences of a casual relationship between smoking and development of carcinoma that was suggested by non-industry scientists.

113. Defendants' internal documents also reveal that top officials conceded that there was virtually no evidence to dispute their internal findings confirming that smoking causes adverse health effects, evidencing that Defendants' the issuance of public statements denying causation occurred without any regard to their truthfulness. The President of B&W acknowledged in October 1962, in a letter to the Chief Executive Officer of R.J. Reynolds: "Let me make my position perfectly clear. If we are able to make strong, affirmative, well-documented statements which might tend to convince the public that the charges against our industry are invalid and insupportable, I would subscribe whole-heartedly to a series of paid advertisements in which we could tell our story. But . . . we cannot take such a position."

114. The views of scientists at the cigarette companies that smoking caused cancer, as observed by visiting scientists and as reflected in internal documents, were consistent with those in the mainstream scientific community, where research into smoking and health issues continued through the 1950's and into the 1960's.

(c) Continuing Research by Mainstream Scientists in the Late 1950s and Early 1960s Confirmed the Accuracy of Earlier Scientific Investigation

115. In 1956, at the urging of Surgeon General Leroy Burney, a study group on smoking and health was organized by The American Cancer Society, The American Heart Association, The National Cancer Institute, and the National Heart Institute. This group of distinguished experts met regularly to assess the character of the scientific evidence relating to tobacco and health. At that time the group noted that sixteen studies had been conducted in five countries all showing a statistical association between smoking and lung cancer. Among the

studies they summarized it was demonstrated that: lung cancer occurs 5-15 times more frequently among smokers than non-smokers; on a lifetime basis one of every ten men who smoke more than two packs a day will die of lung cancer; and cessation reduces the probability of developing lung cancer.

116. They also noted that the epidemiological findings were supported by animal studies in which malignant neoplasms had been produced by tobacco smoke condensates. Further, human pathological and histological studies added evidence to strengthen the "concept of causal relationship." The authors concluded:

Thus, every morphologic stage of carcinogenesis, as it is understood at present, has been observed and related to the smoking habit.

...

The sum total of scientific evidence establishes beyond reasonable doubt that cigarette smoking is a causative factor in the rapidly increasing incidence of human epidermoid carcinoma of the lung.

117. E. Cuyler Hammond and Daniel Horn conducted a massive epidemiological study of smoking and lung cancer under the auspices of the American Cancer Society. In the Hammond and Horn study more than 200,000 men were followed prospectively for nearly four years; during this period 12,000 died. They found that not only was lung cancer far more prevalent among those who smoked as a cause of death (twenty-four times more than non-smokers), so too was heart disease and circulatory disease. Hammond and Horn estimated that among smokers, smoking might account for up to 40% of their mortality.

118. In January 1959, another distinguished group of cancer researchers offered a substantive review of the available evidence linking cigarettes to lung cancer. This group carefully considered the range of alternative hypotheses to account for the significant rise in cases

of, and deaths from, lung cancer. They concluded:

The magnitude of the excess lung-cancer risk among cigarette smokers is so great that the results can not be interpreted as arising from an indirect association of cigarette smoking with some other agent or characteristic, since this hypothetical agent would have to be at least as strongly associated with lung cancer as cigarette use; no such agent has been found or suggested. The consistency of all the epidemiologic and experimental evidence also supports the conclusion of a causal relationship with cigarette smoking, while there are serious inconsistencies in reconciling the evidence with other hypotheses which have been advanced. Unquestionably there are areas where more research is necessary, and, of course, no single cause accounts for all lung cancer. The information already available, however, is sufficient for planning and activating public health measures.

This paper also explicitly refuted ongoing critiques by statisticians Ronald Aylmer Fisher and J. Berkson, often trumpeted by Defendants.

119. Jerome Cornfield noted that investigations of the health implications of smoking had significantly accelerated following the epidemiological studies earlier in the decade. Not only did the new prospective studies conducted in diverse populations confirm and strengthen the earlier findings, so too did pathological and toxicologic analyses. Cornfield and colleagues also noted that the persistent "debate" about the scientific findings regarding cigarette smoking was driven by Defendants:

It would be desirable to have a set of findings on the subject of smoking and lung cancer so clear-cut and unequivocal that they were self-interpreting. The findings now available on tobacco, as in most other fields of science, particularly biologic science, do not meet this ideal. Nevertheless, if the findings had been made on a new agent, to which hundreds of millions of adults were not already addicted, and on one which did not support a large industry, skilled in the arts of mass persuasion, the evidence for the hazardous nature of the agent would generally be regarded as beyond dispute.

As Cornfield suggested, the very idea of a "controversy" had been manufactured by TIRC and other public relations efforts by the Cigarette Company Defendants.

120. In November 1959, Surgeon General Burney offered his own evaluation of the scientific evidence linking cigarettes to lung cancer. Burney revisited the epidemiologic data, as well as other confirmatory animal and pathological investigations. After a thorough assessment of current data, Burney came to the following conclusions:

There can be no doubt that a significant portion of the increase in lung cancer is real. This rise has not been caused solely by improvements in diagnostic techniques, better reporting on death certificates, or an increase of older persons in the population. If we accept as valid the sequence of pathological changes given above the prevention of lung cancer, to a large extent, becomes possible. This will be accomplished if carcinogenic substances from any source can be kept out of the air inhaled into the lungs.

121. For Burney, this fact meant that there were important and timely opportunities to prevent disease:

The Public Health Service believes that the following statements are justified by studies to date:

1. The weight of evidence at present implicates smoking as the principal etiological factor in the increased incidence of lung cancer.
2. Cigarette smoking particularly is associated with an increased chance of developing lung cancer.
3. Stopping cigarette smoking even after long exposure is beneficial.
4. No method of treating tobacco or filtering the smoke has been demonstrated to be effective in materially reducing or eliminating the hazard of lung cancer.
5. The nonsmoker has a lower incidence of lung cancer than the smoker in all controlled studies, whether analyzed in terms of rural areas, urban

regions, industrial occupations, or sex.

6. Persons who have never smoked at all (cigarettes, cigars, or pipe) have the best chance of escaping lung cancer.

Unless the use of tobacco can be made safe, the individual person's risk of lung cancer can best be reduced by elimination of smoking.

122. In 1960, the World Health Organization ("WHO") also issued a statement signaling their own confirmations of the Surgeon General's conclusions, after conducting their own review of the scientific findings.

123. In 1962, yet another thorough and far-reaching assessment of the scientific evidence reached these same conclusions. The British Royal College of Physicians, after two years of investigation, stated, "Diseases associated with smoking now cause so many deaths that they present one of the most challenging opportunities for preventive medicine today." The report concluded:

The strong statistical association between smoking, especially of cigarettes, and lung cancer is most simply explained on a causal basis. . . . The conclusion that smoking is an important cause of lung cancer implies that if the habit ceased, the death rate from lung cancer would eventually fall to a fraction, perhaps to one fifth or even, among men, to one tenth of the present level. Since the present annual number of deaths attributed to lung cancer before the age of retirement is some 12,000 . . . a large amount of premature shortening of life is at issue.

As this statement makes clear, lives were at stake in the assessment of this scientific evidence linking cigarettes to disease. Over and over again, independent critical evaluation of the scientific findings that cigarettes caused lung cancer reached the same conclusion.

124. By this time, the evidence supporting the conclusion that cigarette smoking causes cardiovascular disease was significant. The Framingham Study, a comprehensive prospective

cohort study, had been initiated by the Public Health Service in 1948. The participants in the study included 2,282 men and 2,845 women aged 29 through 62 and free of coronary heart disease at initial examination, based on a random subsample of the residents of Framingham, Massachusetts. A standardized cardiovascular examination at entry included information on habits, physical characteristics, and blood chemistries. Biennial reexamination was undertaken for ascertainment of cardiovascular disease and changes in characteristics. Cardiovascular disease case ascertainment included community and mortality surveillance activities. By 1959, results of the long term, prospective Framingham Study had shown a three-fold increase in the incidence of myocardial infarction and coronary deaths in men who were heavy smokers, as compared to non-smokers, pipe and cigar smokers, and former smokers. By 1972, analysis through twenty-four years of follow-up showed cigarette smoking to be strongly related to myocardial infarction and death from coronary heart disease, with excess risk increasing progressively with the number of cigarettes smoked.

125. Large-scale prospective studies of mortality in Britain in the 1950s showed a step-wise association between the amount of tobacco consumed and mortality from coronary heart disease.

126. In 1952, the New York State Health Department established at the Albany Medical College a prospective study of male civil servants working in Albany. Participation was obtained from 87 percent of eligible men aged forty through fifty-four, of whom 1,823 were free of coronary heart disease at initial examination. After six years, the incidence of myocardial infarction and death from coronary heart disease was significantly higher in cigarette smokers

than in nonsmokers. Subsequent analysis after ten years of follow-up confirmed these findings.

127. Study after study obtained consistent results: selected Minnesota businessmen and professionals were examined beginning in 1948; the Chicago Western Electric Company Study followed 1,981 workers beginning in 1957; the Chicago Peoples Gas Company medical department examined 1,264 persons beginning in 1958; the Minnesota Based Railroad Worker Study looked at coronary heart disease in 65% of the railroad workers in the northwest sector of the United States beginning in 1958; the Tecumseh Health Study began examination of the entire community of Tecumseh, Michigan in 1959. All of these studies revealed a higher incidence of myocardial infarction and death from coronary heart disease in smokers than in nonsmokers.

(d) The Enterprise Responded to this Scientific Investigation in the Public Health Community by Intensifying Their Fraudulent Campaign in the Late 1950s and Early 1960s

128. The Tobacco Institute, TIRC, and its successor CTR were front and center in the Defendants' response to the mounting scientific evidence. TIRC representatives frequently issued statements during this period explaining: "Its purpose [TIRC] is solely to obtain new information and to advance human knowledge in every possible phase of the tobacco and health relationship." Nonetheless, the TIRC program funded almost no research whatsoever that focused on the constituents of cigarette smoke and/or the health of smokers.

129. TIRC's direct responses to the public statements emerging from groups of scientists and policy-makers were consistent with TIRC's general message. Little issued the following statement upon the publication of Burney's 1959 evaluation:

Despite the recent research trends, the conclusions set forth in the Public Health Service review rely almost entirely on past reports that are no more

conclusive today than when these reports were first published. Most of the points are not new but are familiar to the American public because they were first advanced some years ago in statistical studies that admittedly are not supported by experimental evidence.

This despite the fact that Burney had carefully evaluated the science of recent investigators, and did not limit his assessment to epidemiological studies.

130. The Tobacco Institute, the public relations entity which was created in 1958, worked closely with TIRC, despite claims of independence. The Tobacco Institute explained its related strategy in anticipation of the Burney report:

Comment from TIRC for the press remains an effective way to meet anti-tobacco publicity efforts and emphasizes the multiple factors that should be considered. This, of course, is complemented with a continuing program of supplying information to give editors and writers a balanced perspective on questions of tobacco and health.

Published in the November 28 issue of the Journal of the American Medical Association, the article signed by the Surgeon General presented a selection of published data about smoking as related to lung cancer. Anticipating the appearance of the Burney article and learning of its contents in advance of publication, it was possible to provide the press promptly with statements from Dr. C.C. Little, Mr. James P. Richards, president of The Tobacco Institute, and others. Press stories used the tobacco industry comment in covering the Surgeon General's article.

131. For decades, the Tobacco Institute issued press releases and made public statements on behalf of Defendants that attempted to discredit non-industry scientists, government public health statements, and scientific findings that linked cigarette smoking to human disease. The statements contradicted both Defendants' own knowledge of the link between cigarette smoking and disease and the parallel, scientific study by public health scientists. See Section I.B above.

132. For example, on November 27, 1959, the Tobacco Institute issued a press release containing statements attacking an article written by Burney on the hazards of cigarette smoking. The release marked a concerted and coordinated effort with TIRC to attack the Surgeon General, as Little's comments, cited above, were released the following day.

133. On July 6, 1961, the Tobacco Institute issued a statement to United States newspapers for public distribution titled "Allen Gives Tobacco Institute Position on Health Scares" that quoted the Tobacco Institute President George Allen's comments on current health concerns regarding cigarette smoking: "The tobacco industry itself is more interested than anyone else in finding out and making public the true facts about tobacco and health." Allen further claimed that "research in recent years has produced findings that weaken rather than support the claim that smoking is a major contributor to lung cancer."

134. Defendants not only attacked mainstream scientists, they also made blanket assertions, unflinching false, denying the evidence that smoking caused disease.

135. For example, an October 24, 1958 Tobacco Institute press release reporting on animal research stated that more research was needed to prove a link between smoking and lung cancer.

136. Another press release, issued following Allen's attack on the public health community, stated:

The causes of cancer are not now known to science. Many factors are being studied along with tobacco. The case against tobacco is based largely on statistical association studies, the meanings of which are in dispute.

137. These statements were made at the time the Surgeon General was forming an

Advisory Committee on Smoking and Health, with the aim of developing the first Surgeon General's Report on Smoking and Health.

(e) In 1964, the Surgeon General Released the First Surgeon General's Advisory Committee Report on Smoking and Health

138. The 1964 Surgeon General's Report on Smoking and Health is widely considered by historians to be one of the most significant documents in the history of Twentieth Century public health.

139. The Surgeon General's Advisory Committee on Smoking and Health was organized to evaluate the evidence about cigarettes and disease and offer a definitive assessment. As a result, the process of the committee's work, its selection, and its findings were designed to represent a model of objective, public scientific and medical inquiry based on a rigorous and systematic assessment of the health implications of smoking.

140. To establish the Advisory Committee, Surgeon General Luther Terry created a list of some 150 individuals. None were known to have taken a public position regarding the relationship of smoking and health. These individuals represented a number of fields and medical specialties from pulmonary medicine to statistics, cardiology to epidemiology. This list was then circulated to the American Cancer Society, the American Heart Association, National Tuberculosis Association, American Medical Association, as well as the Tobacco Institute. Each group was permitted to eliminate any name, without any reason cited. Individuals who had already published on the issue or had taken a public position were also eliminated. The selection process indicated Terry's commitment to a process that would eventuate in a genuine and definitive consensus. He had insured that the Report could not be attacked on the basis of its

membership. All ten of the members were eminent physicians and scientists; eight were medical doctors, one was a chemist and the other a statistician. Three of the panelists smoked cigarettes, two others occasionally smoked pipes or cigars.

141. The 1964 Report explained:

All of the major companies manufacturing cigarettes and other tobacco products were invited to submit statements and any information pertinent to the inquiry. The replies which were received were taken into consideration by the Committee.

142. Terry's first ten selections all agreed to serve on the Advisory Committee, indicating to him "that these scientists were convinced of the importance of the subject and of the complete support of the Public Health Service."

143. The Report drew on the respective disciplinary strengths of the committee members. Walter J. Burdette was a prominent surgeon and chair of the Surgery Department at the University of Utah; John B. Hickman was the Chair of Internal Medicine at the University of Indiana; and Charles LeMaistre was a pulmonary specialist and head of a very large cancer treatment center. The pathologists joining the Committee were Emmanuel Farber, Chair of Pathology at the University of Pittsburgh; Jacob Furth from Columbia, an expert on the biology of cancer; and Maurice Seevers, Chair of the University of Michigan Pharmacology Department. Louis Feiser of Harvard University was an eminent organic chemist. Completing the Committee were Stanhope Bayne-Jones, a bacteriologist, former head of New York Hospital and dean of Yale Medical School, Leonard H. Schumann, epidemiologist at the University of Minnesota, and William G. Cochran, a Harvard University mathematician with expertise in statistical methods.

144. Terry divided the work into two distinct phases. The first phase, the work of the

Advisory Committee, was to determine the "nature and magnitude of the health effects of smoking." The Committee sought to arrive at a clinical judgment on smoking. As one public health official explained, "What do we (that is, The Surgeon General of the United States Public Health Service) advise our Patient, the American public, about smoking."

145. The Advisory Committee met together nine times in just over a year. In between these meetings both committee members and staff worked to review, critique, and synthesize what had become a formidable volume of scientific work on tobacco. Terry promised that the report on these findings would be followed by phase II, proposals for remedial action. This was significant, for it kept the Committee away from the politics which swirled around the tobacco question. What Terry sought – and ultimately got – was a document that would be unimpeachable from a scientific point of view. Terry astutely recognized that the Advisory Committee could only speak with authority about the scientific nature of the health risks of smoking; he would leave the policy questions to the political process.

146. The Advisory Committee established a set of criteria to evaluate the significance of a statistical association. Recognizing that the nature of inference, as a process, requires judgment, the committee sought to define this process specifically, outlining five specific conditions for judging causal relations:

1. Consistency of the Association. Nearly all the retrospective and prospective studies produced comparable results, despite the fact that different methods were employed for collecting data.

2. Strength of the Association: the ratio of lung cancer rates for smokers versus non-

smokers. The Committee assessed the significance of the dose effect phenomenon, finding that risk increased with amount smoked. According to the Report:

[A]verage smokers of cigarettes have a 9- to 10 fold risk of developing lung cancer, and heavy smokers, at least a 20 fold risk. . . . Thus it would appear that the strength of the association between cigarette smoking and lung cancer must be judged to be high.

3. Specificity of Association. This criteria, according to the Report:

implies the precision with which one component of an associated pair can be utilized to predict the occurrence of the other. i.e. how frequently the presence of one variable (e.g. lung cancer) will predict, in the same individual, the presence of another (e.g. cigarette smoking).

In a discussion of the specificity of the relationship between any factor causal in character and a disease it may produce, it must be recognized that rarely, if ever, in our biologic universe, does the presence of an agent invariably predict the occurrence of a disease. Second, but not less important, is our growing recognition that a given-disease may have multiple causes.

In the current case, the specificity of the association was especially strong. The Report explained, "of the total load of lung cancer in males about 90 per cent is associated with smoking."

4. Temporal Relationship of Associated Variables:

Exposure to an agent presumed to be causal must precede, temporally, the onset of a disease which it is purported to produce. . . . [N]o evidence has thus far been brought forth to indicate that the initiation of the carcinomatous process in a smoker who developed lung cancer antedated the onset of smoking.

5. Coherence of the Association:

A final criterion for the appraisal of causal significance of an association is its coherence with known facts in the natural history and biology of the disease.

147. The 1964 Surgeon General's Advisory Committee's assessment of causality was part of a coherent and logical explanation. These criteria have become the basic orthodoxy for causal inference concerning disease since the time of the report.

148. In all, the 387-page 1964 Surgeon General's Report cited 7,000 articles; its critical review of this evidence substantiated the cigarette as a cause of disease. The Report came to the following conclusions:

Cigarette smoking is associated with a 70 percent increase in the age specific death rates of males, and to a lesser extent with increased death rates of females. The total number of excess deaths causally related to cigarette smoking in the U.S. population cannot be accurately estimated. In view of the continuing and mounting evidence from many sources, it is the judgment of the Committee that cigarette smoking contributes substantially to mortality from certain specific diseases and to the overall death rate.

Cigarette smoking is causally related to lung cancer in men; the magnitude of the effect of cigarette smoking far outweighs all other factors. The data for women, though less extensive, point in the same direction.

Their risk of developing lung cancer increases with duration of smoking and the number of cigarettes smoked per day, and is diminished by discontinuing smoking.

149. The 1964 Report carefully evaluated the animal studies that had been conducted up to that time:

Condensates of tobacco smoke are carcinogenic when tested by application to the skin of mice and rabbits and by subcutaneous injection in rats. . . .

Bronchogenic carcinoma has been produced in laboratory animals by the administration of polycyclic aromatic hydrocarbons, certain metals, radioactive substances, and viruses. The histopathologic characteristics of the tumors produced are similar to those observed in man and are predominantly of the squamous variety.

150. The 1964 Report also found impressively high death rates among smokers, which increased with consumption:

The death rate for smokers of cigarettes only, who were smoking at the time of entry into the particular prospective study, is about 70 percent higher than that for nonsmokers. The death rates increased with the amount smoked. For groups of men smoking less than 10, 10-19, 20-39, and 40 cigarettes and over per day, respectively, the death rates are about 40 percent, 70 percent, 90 percent, and 120 percent higher than for nonsmokers. The ratio of the death rates of smokers to nonsmokers is highest at the earlier ages (40-50) represented in the studies, and declines with increasing age. The same effect appears to hold for the ratio of the death rate of heavy smokers to that of light smokers. In the studies that provided this information, the mortality ratio of cigarette smokers to nonsmokers was substantially higher for men who started to smoke under age 20 than for men who started after age 25. The mortality ratio was increased as the number of years of smoking increased. In two studies which recorded the degree of inhalation, the mortality ratio for a given amount of smoking was greater for inhalers than for non-inhalers.

151. The 1964 Report also reached conclusions as to coronary heart disease: "It is also more prudent to assume that the established association between cigarette smoking and coronary disease has causative meaning than to suspend judgment until no uncertainty remains." The 1968 Report went a step further, concluding that "[b]ecause of the increasing convergence of epidemiological and physiological finding relating cigarette smoking to coronary heart disease it is concluded that cigarette smoking can contribute to the development of cardiovascular disease and particularly to death from coronary heart disease." The 1979 Report flatly stated that "for purposes of preventive medicine, it can be concluded that smoking is causally related to coronary heart disease for both men and women in the United States."

152. From clinical and public health perspective, the 1964 Report concluded that

stopping smoking lowered an individual's risk of disease and health:

Cigarette smokers who had stopped smoking prior to enrollment in the study had mortality ratios about 1.4 as against 1.7 for current cigarette smokers. The mortality ratio of ex-cigarette smokers increased with the number of years of smoking and was higher for those who stopped after age 55 than for those who stopped at an earlier age.

(f) Defendants Further Intensified Their Fraudulent Public Relations Campaign in Anticipation of and Immediately Following the Release of the 1964 Report

153. Even before the release of the 1964 Report, the scientific consensus regarding the harms of smoking was tacitly acknowledged at the highest levels of Defendant companies. And yet, the public position of the companies remained one of distortion and denial of the scientific facts.

154. The 1964 Report caused Defendants to further intensify their public relations campaign, which was undertaken without any regard for the truth of public statements and assertions and, in fact, with knowledge of the falsity of Defendants' claims that smoking had not been established as a cause of disease.

155. Before the Surgeon General's Report was released in January 1964, Defendants took steps to minimize its impact. George Allen, president of the Tobacco Institute, laid out the industry's ongoing position in a radio interview:

All the medical authorities as far as I know, or practically all of them, agree that nobody knows what causes cancer, and specifically lung cancer, and this is a matter that remains to be found by thorough and energetic scientific investigation.

ALLEN: . . . That study [from the Royal College of Physicians, 1962], while considered very strong in its accusations, charges regarding smoking, nevertheless that study itself said that the majority of people

smoke without any harm to their system. So if you say, am I going to get lung cancer if I smoke, a lot of people get lung cancer who have never smoked in their lives. We had a recent case, in which 27 nuns had died of lung cancer, not all together, not in the same place, but among the statistics, who had never been near tobacco. So, certainly one would have to say that if you just ask the question flatly, if I smoke, will I get lung cancer, there are many, many cases and evidences - cited statements to the fact that there is no proved cause and effect relationship between the two.

This was precisely the kind of presentation designed to mislead the public concerning the known harms of cigarette smoking.

156. On March 14, 1963, the Tobacco Institute issued a press release to the New York Times containing a statement by Allen:

Scientific opinions differ widely. Many scientists say that more must be learned before it will be known whether any of the factors now under study, including smoking, has a role in causation of diseases such as lung cancer, and if so, whether that role is direct or indirect, primary or incidental. In the opinion of these scientists, singling out tobacco as a major factor is not warranted by scientific knowledge.

157. On April 15, 1963, the Tobacco Institute issued a press release containing "Comments on Cancer Society Booklet":

There is dispute among scientists as to the causes of lung cancer. Many differing opinions exist. . . . The booklet does not purport to contribute new knowledge. It is our belief that the answers to questions about diseases such as lung cancer will come through the research laboratory, not through booklets or campaigns for or against smoking.

158. A June 19, 1963 Tobacco Institute press release claimed that since 1954 the tobacco manufacturers had supported grant-in-aid research through TIRC and had contributed more than \$6 million in funds towards independent medical and scientific research. While the research programs were continuing, the press release claimed that research findings regarding

underlying causes of cancer and cardiovascular diseases were to that date were inconclusive.

159. A July 9, 1963 press release reaffirmed the Tobacco Institute's public position to not accept any claims that smoking may play a part in causation of human disease until further research provided facts to link smoking to certain health effects. The release quoted Allen: "With the numerous theories, statements, and resolutions that have been presented to the public, there is some danger of losing sight of what ought to be the basic objective of all who are concerned. That is doing the needed research. We believe the answers will be found. And they will be found in the scientific laboratory, not through pronouncements either for or against tobacco."

160. In September 1963, the Tobacco Institute issued a publication entitled "Tobacco and The Public Interest--Reprint of George Allen address before the National Association of State Departments of Agriculture." It provided: "[T]here ought to be a respite from theories, resolutions and emotional statements for a time at least, so that scientists can objectively evaluate, what is known and what is not known." He reaffirmed Defendants' purported commitment to research to find necessary facts: "That is what this industry has tried to do in the past, through the research program of the TIRC. And that is what we shall do in the future, until enough facts are known to provide solutions to the health questions involved."

161. On October 11, 1963, intensifying Defendants' public relations campaign in anticipation of the 1964 Report, the Tobacco Institute issued a press release: "Allen Outlines Some of Reasons Why Smoking-Health Theory is Disputed." It provided: "[P]eople sometimes forget that there are good reasons why the theories about smoking and health problems are in

dispute, and are often questioned by responsible scientists. . . . [T]he original theory about smoking and lung cancer – the theory that smoke was a direct, contact carcinogen – has virtually been abandoned." He asserted that the case against smoking rested largely on statistical studies, whose meanings were questioned by many leading medical statisticians and that there was a growing interest among scientists studying the issue as to the possible role of constitutional and genetic factors.

162. On November 1, 1963, Hill & Knowlton distributed a Tobacco Institute news release entitled "Tobacco Industry Research Will Find Answers, George Allen Says." Allen stated he was "convinced that scientific research will discover the answers to questions about smoking and health and the causes of the diseases with which smoking has been associated." After cataloguing Defendants' positions on smoking and health, Allen "suggest[ed] a moratorium on 'resolutions and emotional statements' about smoking and health, 'so that scientists can objectively evaluate what is known and what is not known."

163. A November 3, 1963 Tobacco Institute press release stated that the tobacco industry was on a "crusade" to find answers to the "questions about smoking and health" and that it "should be a crusade neither for or against tobacco. It is a crusade for research."

164. Following the release of the 1964 Surgeon General's Report, the principal approach by Defendants to the burgeoning knowledge of tobacco's harms was to "stay the course." Defendants continued to rely on the basic strategic formulations set forth in the mid-1950s. They continued to assert alternative causation theories (through arguments that had been effectively refuted). Despite overwhelming evidence from a wide range of disciplines including

statistics and epidemiology, pathology and chemistry, clinical observation, and animal experimentation, including their own observations, Defendants continued to claim "no proof" and continued to attempt to create doubt about the scientific findings.

165. Defendants intentionally exploited denial and rationalization by smokers. In a memo to Cullman of Philip Morris, George Weissman described how in response to the 1964 Surgeon General's Report "we must in the near future provide some answers which will give smokers a psychological crutch and a self-rationale to continue smoking." Among the "crutches" and "rationales" proposed to be offered to the smokers were questions of medical causation, "that more research is needed," and that there are "contradictions" and "discrepancies."

166. On January 13, 1964, in a Wall Street Journal article, Defendants disputed the 1964 Report saying the Report "was not the final chapter," and that more research was still needed.

167. On March 6, 1964, the Tobacco Institute sent a press release announcing the reorganization of TIRC under its new name, CTR. This press release represented that CTR's research policy would be set by doctors and scientists independent of the tobacco industry.

168. In testimony on June 25, 1964 at a hearing of the Committee on Interstate and Foreign Commerce, Bowman Gray, Chairman of the Board of R.J. Reynolds, stated: "I believe . . . that nearly everyone familiar with these difficult problems would agree that there are large and basic areas where there is lack of knowledge, uncertainty, and where a great deal more research is essential before definitive answers can be made. Many distinguished scientists are of the opinion that it has not been established that smoking causes disease." He also informed

Congress that Defendants would solve the health crisis: "If it is proven that cigarettes are harmful, we want to do something about it regardless of what somebody else tells us to do. And we would do our level best."

169. In a newspaper article dated July 12, 1964, Horace Kornegay, the Chairman and President of the Tobacco Institute, declared: "There exists no definite proof that smoking cigarettes causes lung cancer or any other dreaded disease."

170. On August 17, 1964, CTR issued a press release quoting Little: "The fact remains that the knowledge is insufficient either to provide adequate proof of any hypothesis or to define the basic mechanisms of health and disease with which we are concerned."

171. On February 7, 1965, the Binghamton Press quoted a Tobacco Institute spokesman as saying that the link between smoking and disease is was still unproven despite the 1964 Surgeon General's Report.

172. In June 1965, the Tobacco Institute's public relations campaign on issues of smoking and health was aptly dubbed in a confidential tobacco industry memorandum as the "chronology of confusion." The "chronology" was put together by Hill & Knowlton and notes that "TI and CTR publicized the industry stance on smoking and health in a variety of ways . . . none of which revealed the true hazards of smoking and all of which were intended to confound the issues (and the public)."

173. Defendants continued to add to the "chronology of confusion" and continued to focus many of their efforts on the 1964 Report. On July 27, 1965, Paul D. Smith, a Philip Morris in-house attorney, sent a letter to David Hardy of the law firm Shook, Hardy & Bacon providing

a list of statisticians that could be used by the tobacco industry to discredit the Report.

174. On December 29, 1965, the Tobacco Institute issued a press release stating that research had not established whether smoking causes disease and that it was still an "open question." The release went on to state that "[i]f there is something in tobacco that is causally related to cancer or any other disease, the industry wants to find out what it is, and the sooner the better."

175. On October 21, 1966, the Tobacco Institute issued a public statement to United States newspapers that stated that the tobacco industry knew "of no valid scientific evidence demonstrating that either 'tar' or nicotine is responsible for any human illness."

(g) Following Publication of the 1964 Report, the Scientific Community Continued to Document the Link Between Smoking and an Extraordinary Number of Serious Health Consequences

176. The medical literature is replete with extensive epidemiological studies, conducted over decades, comparing the disease and death rates of millions of smokers and nonsmokers. Every relevant population and demographic group has been examined. Examples of these studies are: American Cancer Prevention Study I and II; British Physicians Study; Dorn Study of U.S. Veterans; National Health Interview Study; Current Population Survey; and the Behavioral Risk Factor Survey.

177. The science of epidemiology is well recognized as an integral part of medical science and a proper form of evidentiary proof.

178. Still more studies have examined the induction of cancers and abnormal pathology in animals, organ systems, and at the cellular and sub-cellular level.

179. The psychology of smoking behavior and the pharmacological addition to nicotine have all been extensively studied.

180. These studies, performed by scientists for science, not for litigation, have been critically examined by blue ribbon scientific teams and peer reviewers to ensure accuracy and adherence to generally accepted scientific procedures.

181. This body of literature has been reviewed and presented in Reports of the Surgeon General on Smoking and Health published in 1964, 1967, 1968, 1969, 1971, 1972, 1973, 1974, 1975, 1976, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1988, 1989, 1990, 1992, 1994, 1998, 2000, and 2001.

182. Beginning with the first Report in 1964, the United States Public Health Service has followed the scientific consensus formation approach when producing a Report of the Surgeon General on Smoking and Health. The scientific community forms a consensus on issues of causation by reviewing all of the scientific evidence available; examining that evidence for its strength, consistency, coherence, temporal association and biological plausibility; and then reaching a judgment as to whether the data support a causal relationship between smoking and a disease.

183. The Surgeon General's Reports represent a state-of-the-art consensus of the scientific community on the extent of scientific knowledge about cigarette smoking at the time at which they are published. They are the product of a broad-based peer review process. Widespread distribution to the scientific community ensures that the information reviewed in the process of preparing a Report is complete, that a wide variety of perspectives on the data are

considered, that the causal judgments reached are sound and those of the mainstream of United States science, and that any potential confounding or biasing factors have been adequately accounted for in review. This process was followed in reaching conclusions about the causal relationships between cigarette smoking and cancer of the lung, cancer of the lip, cancer of the tongue, cancer of the mouth, cancer of the esophagus, cancer of the pancreas, cancer of the larynx, cancer of the bladder, cancer of the kidney, cardiovascular disease (coronary heart disease), atherosclerosis, aortic aneurysm, peripheral vascular disease, cerebrovascular disease, chronic bronchitis, emphysema and COPD, and these conclusions have stood the tests of time and review by a wide variety of scientific groups.

(h) Defendants Responded to the Scientific Consensus with a Determined Fraudulent Campaign Throughout the Late 1960s and Early 1970s

184. Defendants responded to the formation of scientific consensus throughout this period in the same way they had responded to the evidence that smoking caused lung cancer in the early 1950's: with a campaign of proactive and reactive responses to scientific evidence that were false and designed to mislead the public about the health consequences of smoking in furtherance of the goals of the Enterprise.

185. The literature published by the Tobacco Institute consistently argued that evidence implicating cigarettes and smoking as causes of disease remained hypothetical, limited and static.

186. In 1967, Defendants received feedback showing that their "open controversy" strategy was working. Through a focus group with smokers conducted by public relations firm Ted Bates for Lorillard, Defendants learned that

because they are still smoking, smokers are compelled to feel the

government has not proved its case. If they want to hear anything, it is reassurance that smoking does not cause lung cancer – not that there is a difference of opinion. Smokers agree that smoking is 'unhealthy' but don't translate this as meaning it causes lung cancer or any specific, potentially fatal disease. Smoking may cause shortness of breath, a cough, or even a shorter life – but they don't expect it to give them lung cancer.

187. In a 1967 press release entitled "AT Refutes Anti-Cigarette Charges," American Tobacco announced it was distributing a booklet entitled "The Cigarette Controversy." The booklet purported to review research done over the prior fifteen years and concluded that, in the absence of medical evidence, "the question is still an open one." It was mailed to more than 140,000 stockholders of American.

188. In an address delivered on October 3, 1967, Paul D. Smith, Vice-President and General Counsel of Philip Morris, stated: "The truth of the matter is this: No one knows whether cigarette smoking causes any human disease or in any way impairs human health." Smith also claimed that "[n]obody has yet been able to find any ingredient as found in tobacco or smoke that causes human disease." He also criticized the Public Health Service's accusations against tobacco and claimed that the public research community was biased due to influence from the distribution of federal funds.

189. In November 1967, at the direction of outside lawyers David Hardy of Shook, Hardy & Bacon and Ed Jacobs of Cabell, Medinger, Forsyth & Decker, the Tiderock Corporation, the Tobacco Institute's public relations firm, prepared an action plan entitled "The Cigarette Controversy." The action plan laid out the objective of influencing public opinion by designing specific initiatives to re-establish the "cigarette controversy." The program called for a

position paper for intra-industry use as well as one in journalistic form. The plan included targeted categories for mailings such as the medical profession, scientists, communicators (press, radio, television), educators, top public figures, and 10,000 top corporate presidents. It also detailed the publication of magazine articles.

190. The Tobacco Institute placed an advertisement on November 21, 1967, which declared: "The Tobacco Institute has donated more than \$20,000,000 for independent research to resolve this controversy. We are pledged to continue this effort, regardless of cost, until a definitive answer is found."

191. In 1968, the Tobacco Institute published a statement entitled "The Cigarette Controversy: An examination of the Facts by the Tobacco Institute -- The Tobacco Industry's Contribution to Health Research." It declared:

In order to help advance scientific understanding of the causes, as well as the means of preventing and controlling disease, the American tobacco industry has contributed millions of dollars for independent research on smoking and health. During the past thirteen years, the industry has supported over 300 independent health studies through the industry's Council for Tobacco Research - U.S.A. Do Cigarettes cause disease? In spite of all the debate – in spite of all of the research – that questions is still unanswered. The industry will continue to seek the truth in the continuing cigarette controversy.

192. In March 1968, the National Enquirer, with a circulation of close to 1,000,000 at the time, published an article titled "Cigarette cancer link is bunk." The article did not indicate that it was written by anyone with ties to Defendants and the article appeared under pen name of "Charles Golden." Later, a sportswriter named Stanley Frank conceded that he wrote the article. Frank was at the time an employee of Hill & Knowlton and he was paid \$500 by the Tobacco

Institute for the work.

193. Frank's article attacked the Surgeon General's report: "Very few people know however that 39 of the 49 medical experts who testified before the Senate and House Committees on Commerce the following year disagreed strenuously with the report. They charged that it was based on false interpretations of statistics. Only two of the dissenting experts were connected with the tobacco industry." The scientists the article presented as not "connected with the tobacco industry" included Dr. Louis Clerf, who testified previously for Philip Morris as an expert in a civil cancer case, and Dr. Bernice C. Sachs, who cleared her testimony with Alexander Holtzman, counsel for Philip Morris. The article also indicated that \$8 million in research grants from Defendants allowed scientists to state that "no one working on these or any other, projects throughout the world has isolated a substance in cigarettes or tobacco smoke that is a proven lung cancer inducing agent." The article contained many other false and flatly incorrect statements.

194. In accordance with the "The Cigarette Controversy" action plan developed by the Tiderock Corporation, the Tobacco Institute ordered millions of reprints of the Stanley Frank article (originally appearing in True magazine and the National Enquirer) for mass mailings and for use in response to inquiries from the public, many of which came from physicians (including a request for 400 copies for distribution to Purdue University medical students). The Tobacco Institute sent reprints of an article to over 500,000 opinion leaders at a cost estimated at \$836,000. In April of 1968, Lorillard, R.J. Reynolds, Philip Morris, and Brown & Williamson purchased reprints of the True article for further mailings.

195. Later, when the FTC began an investigation into industry involvement in the True article, the Tobacco Institute's Vice President of Public Relations, William Kloepfer, falsely denied direct involvement or knowledge of payment for the freelance article or mailings of True article reprints. In actuality, the Tobacco Institute had instructed Tiderock in December of 1967 to make a mass mailing of reprints before the article appeared. In an internal memorandum outlining the Tobacco Institute's involvement with the True article, Kloepfer noted with approval that the Tobacco Institute's involvement in another article, "the Barron's editorial," was not uncovered: "It should be noted that our earlier project, the advertisement of the Barron's editorial, escaped noticeable rebuttal. The editorial will be remembered, however, as an independent criticism of government activity, with no reasonable suspicion possible that cigarette interests were responsible for its preparation."

196. An April 23, 1968 pamphlet of questions and answers represents the Enterprise's views:

Q: Has any important new evidence against cigarettes been reported in recent years?

A: No. Cigarettes today are breanded guilty on virtually the same kind of evidence that was considered insufficient only a few years ago.

Q: Is smoking a health hazard?

A: That question is still an open one. . . . At that time, most scientists considered the findings of these studies insufficient to prove a case against smoking. Since then, many other studies have been done. But there is still no proof that cigarette smoking is a cause of lung cancer- or any other disease.

197. The Tobacco Institute's internal documents reveal the Enterprise's true intentions with respect to the Tobacco Institute's press releases and public statements. The Tobacco

Institute's 1968 "Tobacco and Health Research Procedural Memo" states: "The most important type of story is that which casts doubt on the cause and effect theory of disease and smoking. . . . [T]he headline should strongly call out the point – Controversy! Contradiction! Other factors! Unknowns!"

198. On August 17, 1968, the New York Times quoted the Tobacco Institute as attacking a Surgeon General's task force for a "shockingly intemperate defamation of an industry which has led the way in medical research to seek answers in the cigarette controversy."

199. On December 24, 1968, Shook, Hardy & Bacon authored the following statement for Joseph F. Cullman, Chairman of the Board of Philip Morris: "The cigarette industry recognizes its responsibility to the American people. It is anxious to seek the answer to the question of whether cigarettes are in fact the cause of any human disease. It is unfortunate that emotional propaganda against cigarettes has been permitted to suppress scientific inquiry and proof." Shook, Hardy & Bacon also asserted that statistical association "can never prove cause and effect."

200. In 1969, the Tobacco Institute published an article entitled "Centuries-old Smoking/Health Controversy Continues," stating that the causes of cancer and heart disease were still unknown. The article stated that evidence concerning smoking and cardiovascular disease was, if anything, more confused than it was in 1964 and did not permit the conclusion that there was a causal relationship. A supporting article by Dr. Carl Seltzer of Harvard University was cited as "independent" support for the position, but Seltzer's work was not independent. He forwarded his draft article to The Tiderock Corporation, which forwarded it to the Tobacco

Institute. It was also circulated to the General Counsel, Ad Hoc Committee, Chief Executives, and Defendants' public relations representatives prior to publication.

201. A February 3, 1969 CTR press release explained:

The scientist who has been associated with more research in tobacco and health than any other person declared today that there is no demonstrated causal relationship between smoking and any disease. The gaps in knowledge are so great that those who dogmatically assert otherwise – whether they state that there is or is not such a causal relationship – are premature in judgment. If anything, the pure biological evidence is pointing away from, not toward, the causal hypothesis. Statistical associations between smoking and lung cancer, based on study of those two factors alone, are not proof of causal relationship in the opinion of most epidemiologists.

202. On February 6, 1969, General Counsel for Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and Liggett, members of the Committee of Counsel, approved as a special project the running of a copy of the foregoing press release under the headline: "How Much is Known about Smoking and Health." The ad was run in major newspapers around the country, advertising journals, and medical journals, including papers in Richmond, Raleigh, Knoxville, Nashville, Washington, New York, Louisville, Lexington and Columbia; in the eastern edition of the Wall Street Journal, Advertising Age, Broadcasting, Editor and Publisher, Southern Advertising and Publishing, National Association of Retail Druggist Journal, Food Topics, VEND, Retail Tobacconist, Southern Tobacco Journal, Tobacco, Tobacco Distributor and Confectionary Guide, Tobacco Jobber, Tobacco Leaf, Tobacco Record, Tobacco Reporter, US Tobacco Journal, Medical World News, Medical Economics, and US Medicine.

203. At the same time, an internal B&W document entitled the "Smoking and Health Proposal" explained: "[D]oubt is our best product since it is the best means of competing with

the 'body of fact' that exists in the mind of the American public."

204. In a 1969 B&W document prepared for public dissemination entitled "How Eminent Men of Medicine and Science Challenged the Smoking-and-Health Theory During Recent Hearings in the U.S. Congress," B&W stated that "the question of smoking and health remains an open, not a closed, issue." B&W also asserted that "[t]he cause of cancer in humans, including the cause of cancer of the lung, is unknown" and that "[t]he concept that cigarette smoking is the cause of the increase in lung cancer and emphysema is a colossal blunder."

205. In April 1969, the Tobacco Institute issued to the public a pamphlet, "The Cigarette Controversy, 8 Questions & Answers" presenting "facts" explaining that there is "controversy" surrounding science of smoking and health that must be answered by further scientific research and public discussion. The pamphlet was written with the assistance of the law firm Shook, Hardy & Bacon and reviewed by CTR's Scientific Director Robert Hockett prior to publication. According to a letter from David Hardy, an attorney with Shook, Hardy & Bacon, this Tobacco Institute booklet was written to explain to the public the "reasons why representatives of the Cigarette industry contend that the case against cigarettes has not been proven [and that the] Tobacco Institute has felt it desirable to have some readable document to give them which spells out some of the unanswered questions."

206. On November 11, 1969, the Tobacco Institute published an advertisement – "All Advertising Should be Truthful – Reprint from Advertising Age – The Truth Seems a Little Twisted" – which attacked American Cancer Society and the American Heart Association commercials regarding cigarette smoking risks. The advertisement attacked the statements of the

organizations as untruthful and misleading; as wild, unsupported allegations that should not be permitted on the air. The Tobacco Institute ran these advertisements in newspapers in New York, Boston, Philadelphia, Washington, Chicago, Los Angeles and San Francisco and in issues of Time, Newsweek, and the Wall Street Journal.

207. By the 1970s, the die of denial was long since cast, and it proved impossible to shift Defendants' position of "no proof," "open question," and "controversy." Even as new data confirming the powerful harms of tobacco came to be understood and articulated, Defendants held fast to its position that the dangers of smoking had not been demonstrated.

208. In February 1970, the Tobacco Institute issued an announcement intended for publication titled "The Tobacco Institute Believes the American Public is Entitled to Complete, Authenticated Information About Cigarette Smoking and Health," with the subtitle "The American Cancer Society Does Not Seem to Agree." This announcement challenged information issued by the American Cancer Society at a February 5th press conference concerning a research project titled "The Effects of Cigarette Smoking Upon Dogs."

209. In March 1970, the Tobacco Institute ran TV spots which stated: "Today we in this industry support more impartial research on the vital question of tobacco and health than any agency of the Federal Government and more than all of the voluntary agencies combined. We have great confidence that the findings of this research will lead the way in providing fair and accurate information regarding cigarette smoking. Do Smokers have common sense? We in the tobacco industry believe they do, and that millions of reasonable and responsible men and women who smoke will not be misled by the campaign of fear that is conducted against smoking."

We believe that these emotional charges are no substitute for objective facts gathered from research."

210. In April 22, 1970, a CTR press release titled "Studies Raise Questions About Smoking as Health Hazard" stated: "The deficiencies of the tobacco causation hypothesis and the need of much more research are becoming clearer to increasing numbers of research scientists."

211. On April 30, 1970, the Tobacco Institute sent a press release that falsely claimed that the American Cancer Society had refused to release experimental data underlying the Auerbach/Hammond "smoking beagles" study (which discovered bronchial carcinoma in beagle dogs forced to smoke tobacco).

212. On September 7, 1970, Dr. Sheldon Sommers, Scientific Director of CTR and Chairman of the Scientific Advisory Board, asserted in an article entitled "Smoking and Health: Many Unanswered Questions": "I do not believe it has been scientifically established that cigarette smoking causes human disease," and "CTR is deeply committed to the search for answers."

213. Later that month, a Tobacco Institute advertisement stated: "After millions of dollars and over 20 years of research – The question about smoking and health is still a question."

214. In December of 1970, the Tobacco Institute issued yet another statement, published as an advertisement in major American newspapers, this one titled "The Question about Smoking and Health Is Still a Question":

[A] major portion of this scientific inquiry has been financed by the people who know the most about cigarettes and have a great desire to learn the

truth . . . the tobacco industry. And the industry has committed itself to the task in the most objective and scientific way possible. 1115 reports in all. Through this work much valuable data have been produced about lung cancer, heart disease, chronic respiratory ailments and other diseases. However, there's still a lot more to be learned. There are eminent scientists who believe that the question of smoking and health is an open one and that research in this area must go forward. From the beginning, the tobacco industry has believed that the American people deserve objective, scientific answers. With this same credo in mind, the tobacco industry stands ready today to make new commitments for additional valid scientific research that offers to shed light on new facets of smoking and health.

But the eminent scientists in such pronouncements were never identified. Defendants widely distributed reprints of the advertisement and provided it to every Member of Congress with a personal letter from Kornegay, President of the Tobacco Institute.

215. The Tobacco Institute published a shorter summary of the 1970 "Cigarette Controversy" pamphlet in 1971 entitled "Smoking and Health: An Age-Old Controversy." This leaflet briefly stated the industry's opinions on the questions of causation and the validity of the scientific research conducted to date. A November 9, 1973 Tobacco Institute memorandum regards "Smoking and Health: An Age-Old Controversy" as a "good synopsis of the [1970] pamphlet" and a "shorter version of the industry stand on the cigarette controversy" that should "be put to good use."

216. In 1971, the Tobacco Institute mailed a "backgrounder" in a three ring binder to 1,065 chief editorial writers. The backgrounder was also sent to members of the National Association of Science Writers. The Tobacco Institute Backgrounder consisted of five parts: (1) Smoking and the nonsmoker; (2) The counter evidence (which cited many CTR Special Project recipients); (3) Smoking and Pregnancy (which emphasized the purported inconclusiveness of

the evidence and attempted to explain how different surveys could be used to reach conflicting conclusions); (4) Some Facts About Tobacco; and (5) Vital Statistics – How Accurate are they?

217. In 1971, the Tobacco Institute revised and republished another edition of "The Cigarette Controversy - Eight Questions and Answers." It was distributed by direct mail to physicians, librarians, newspaper and magazine editors, Members of Congress and their top aides, members of the public relations groups, medical school faculties, leading tobacco growers and executives of industry supplier firms, other United States business leaders, college and university presidents and department heads, science writers, and business and financial writers and securities analysts. Copies were also mailed to a large list of ministers. The mailing went to nearly 350,000 persons. It was sent to over 300 radio and TV station managers together with a sixty second announcement.

218. Defendants' executives also continued to insist in the 1970s, as they had in the 1950s, that "if and when" any harmful elements were identified in cigarettes, they would take necessary steps to remove them.

219. On January 3, 1971, Joseph Cullman III, President of Philip Morris, explained in a "Face the Nation" TV interview:

[T]his industry can face the future with confidence because when, as, and if any ingredient in cigarette smoke is identified as being injurious to human health, we are confident that we can eliminate that ingredient. We do not believe that cigarettes are hazardous; we don't accept that. But we are working with the government, working very hard with the government, on various methods of ascertaining whether or not cigarettes can be found hazardous. . . . I believe they have not been proved to be unsafe.

220. During the same televised interview, Cullman falsely denied that cigarettes are

hazardous or pose a hazard to pregnant women or their infants. His statement was directly contrary to what he had been informed by Helmut Wakeham, Philip Morris's Vice President for Corporate Research and Development, two years earlier.

221. In an effort to detract attention from smoking as a cause of disease, the Enterprise pointed to other possible causes. On January 1, 1971, in a Tobacco Institute press release, the industry made statements criticizing public health efforts, suggesting to the public that not enough was being done to investigate incidents of lung cancer in non-smokers. The press release states that "[t]hat thousands of lung cancer victims who have never smoked cigarettes [are] being neglected by expensive propagation of myths instead of scientific knowledge."

222. A January 3, 1971 Tobacco Institute press release quotes Tobacco Institute President Horace Kornegay: "Any organization in a position to apply resources in the search for those keys [to the 'locked door' to the 'statistical path' that links smoking to ill health] – and which fails to do so – will continue to be guilty of cruel neglect of those who it pretends to serve." In this statement, Kornegay told the public that the tobacco companies planned to provide more than \$4 million for independent scientific research.

223. The Enterprise again publicly denied any links between smoking and health in a May 25, 1971 Tobacco Institute press release. In this press release, Defendants represented that "many eminent scientists" believe that "the question of smoking and health is still very much a question."

224. In November 1971, R.J. Reynolds requested and received from the Tobacco Institute 1,000 copies of the pamphlet "Smoking/Health An Age Old Controversy" for use in

responding to inquiries from children about smoking and health. Again in February 1973, 500 more copies were requested for the latest printing, again for responding to school children.

225. On November 15, 1971, the Tobacco Institute stated in a press release that smoking is not harmful to pregnant women. They claimed that many doctors believe that "question of smoking and health is still an open one."

226. In the January 24, 1972 issue of the Wall Street Journal, Philip Morris's Senior Vice President James Bowling declared that "[i]f our product is harmful . . . we'll stop making it. We now know enough that we can take anything out of our product, but we don't know what ingredients to take out." Bowling further stated that "[w]e don't know if smoking is harmful to health, and we think somebody ought to find out."

227. On February 1, 1972, the Tobacco Institute issued a press release declaring that "[t]he cigarette industry is as vitally concerned or more so than any other group in determining whether cigarette smoking causes human disease, whether there is some ingredient as found in cigarette smoke that can be shown to be responsible, and if so, what it is," and that "despite this effort the answers to the critical questions about smoking and health are still unknown."

228. Defendants vilified reports demonstrating the adverse health effects of smoking. A press release asserted that the 1972 Surgeon General's Report "insults the scientific community" and that the report was "another example of 'press conference science' -- an absolute masterpiece of bureaucratic obfuscation." The press release further asserted that "the number one health problem is not cigarette smoking, but is the extent to which public health officials may knowingly mislead the American public."

229. In a Tobacco Institute press release on February 1, 1972, President Horace Kornegay stated that "[t]he cigarette industry is as vitally concerned or more so than any other group in determining whether cigarette smoking causes human disease . . . and that despite this effort the answers to the critical questions about smoking and health are still unknown."

230. The reason behind the Tobacco Institute's public statements is explained by a 1972 Tobacco Institute internal document, which stated: "In cigarette controversy, the public – especially those who are present and potential supporters (e.g. tobacco state congressmen and heavy smokers) – must perceive, understand and believe in evidence to sustain their opinions that smoking may not be the causal factor."

231. After the publication of "The Cigarette Controversy," the Tobacco Institute published a series of classified advertisements in various magazines, inviting readers to request copies of the pamphlet. For example, on November 6, 1972, the Tobacco Institute ran an advertisement in The Nation that stated "YOU HAVE A RIGHT TO A FULL DISCUSSION ABOUT smoking and health. The Cigarette question is still a question. Send for free booklet 'The Cigarette Controversy'."

232. The Tobacco Institute published a 1974 version of "The Cigarette Controversy" and continued to argue that objective research was needed to explore questions about smoking and health. The Tobacco Institute stated that a causal relationship between smokers and illness or death had not been established and that such claims were unproven. Over one million copies were in print by the end of the year.

233. In a 1975 marketing documents, B&W acknowledged the necessity of continuing

the "open controversy" strategy, for the company discovered that: "Smokers perceive cigarette smoking as dangerous for one's health. However, they continue to smoke. Thus, they are faced with the fact that they are behaving illogically. They respond by providing either a rationalization for smoking or by repressing their perceptions of the dangers involved. . . . The advertising must also cope with consumer attitudes about smoking, providing either a rationale or a means of repressing the health concern."

234. On April 7, 1975, the Tobacco Institute produced a pamphlet: "True? False? Tobacco Facts," which was sent out under various state tobacco trade associations. Over 10,000 copies were mailed to these groups. Each carried the following statement: "This leaflet is presented to aid full, free and informed discussion of the smoking and health controversy in the public interest and in the conviction that the controversy must be resolved by scientific research." The Tobacco Institute ordered 35,000 copies for itself. RJR requested 10,000 copies alone. The material was edited and republished in 1979 and 1982.

235. These materials, and the entirety of Defendants' fraudulent campaign, took public positions that were both extraordinarily uniform in content as a result of Defendants' coordination, and directly contrary to Defendants' internal assessments, which recognized that smoking caused disease.

- (i) Defendants' Internal Documents and Research from the 1960s, 1970's, and Beyond Show Their Continued Recognition of the Health Effects of Cigarette Smoking

236. Defendants knew there was a consensus in the scientific community that smoking caused lung cancer and other diseases, yet they publicly insisted on the idea of a scientific

controversy and disputed scientific findings knowing that their assertions were false. Defendants continued to make claims of an "open question" in rigid adherence to the strategy conceived by the Enterprise in late 1953. All of these claims were made with reckless disregard for the truth or falsity of matters asserted.

237. In a memorandum dated October 24, 1963, Wakeham wrote to Hugh Cullman, President and CEO of Philip Morris, warning him of future areas of attack and stating that the health community at that time was overlooking the dangers of nitrosamines, carbonates and other carcinogenic components of tobacco smoke. Referring to the link between smoking and chronic bronchitis and emphysema, Wakeham explained that "experts have predicted that the cigarette industry may be in greater trouble in this area than in the lung cancer field."

238. Following the 1964 Surgeon General's Report, a report by Wakeham noted that "little basis for disputing the findings [of the 1964 Surgeon General's Report] at this time has appeared" and that the report reflected a "professional approach" to the matter of smoking and health. However, Philip Morris continued to maintain – for another forty-five years – its public position that the causal link between smoking and health was an open question. Philip Morris and the other Defendants attacked the Report with reckless disregard for the truth or falsity of their assertions.

239. According to a February 1964 report prepared by Alan Rodgman at R.J. Reynolds, "[t]he known composition of tobacco smoke is not inconsistent with the biological findings that cigarette smoke is carcinogenic and ciliastatic."

240. Another of Rodgman's February 1964 reports indicated that all of the data

acquired by R.J. Reynolds's studies found the same "biological, pathological, or statistical data indicting cigarette smoke as a health hazard."

241. In August 1964, Rodgman recognized in an internal R.J. Reynolds document: "Many nitrosamines [substances in tobacco smoke] have been shown to be carcinogenic for different organs in several species of animals. As nitrosamines are formed by the reaction of oxides of nitrogen with secondary amines, it is possible that cigarette smoke could contain nitrosoanabasine and nitrosonornicotine. Nitroanabasine, which is a derivative of the carcinogenic nitrosopiperidine, has now produced many tumors of the esophagus when given orally to rats."

242. A report written in an October 1964 by British tobacco scientists entitled "Report on Policy Aspects of the Smoking and Health Situation in U.S.A." stated that "[b]oth [Liggett] and Lorillard scientists told us quite bluntly that they considered TRC [the British trade group] research was on the correct basis and CTR largely without value." The report explained that R.J. Reynolds, American, and B&W criticized the TRC approach to bio-assay research on three grounds: (1) "It constituted an implied admission that tobacco contained health hazards," which could be damaging in law suits; (2) mouse skin painting with smoke condensate, according to Little, was scientifically unsound and based on a fallacy (though CTR had contracted with Bio-Research Inc. for research of this type); and (3) it could present the United States' manufacturers in a bad light to the public since they could be represented by hostile writers as being negligent of public health in comparison with British manufacturers.

243. In 1966, in a semi-annual report on Philip Morris's "Project 6900," exploring the

biological activity – carcinogenicity, mutagenicity, cytotoxicity, etc. – of tobacco smoke, Project Director Peter C. Luchsinger noted that "cigarettes will most likely be implicated as one of the causative agents in emphysema and bronchitis." Luchsinger noted that in a series of long-term primate experiments financed by Philip Morris, monkeys that were forced to inhale smoke had a higher rate of emphysema than those in a non-smoking control group. Project 6900 included other experiments with smoking rodents, cats and other animals to determine whether lung function was differently disabled by different types of cigarettes. Luchsinger's report, never released to the public and marked "Not to be taken from this room," concluded that "gross lung pathology can be induced by smoking cigarettes."

244. A May 1967 report on "Project 6900" described further tests with mice, pigs, monkeys and cats, concluding that filtered smoke was "no less tumorigenic than nonfiltered smoke."

245. In January of 1967 outside counsel Ed Jacob of the law firm Cabell, Medinger, Forsyth & Decker (a firm that represented R.J. Reynolds and CTR) met with Dr. Arthur Furst, a CTR Special Project funding recipient. Furst informed the attorney that there is a dose response relationship between nickel added to cigarettes and tumors in mice. Jacob falsely and without any basis claimed that the relationship had not been demonstrated but was a statistical artifact resulting from using different mice at different times.

246. On June 20, 1967, G.F. Todd of the Tobacco Research Council (the British counterpart to TIRC/CTR) wrote to Addison Yeaman, Vice President and General Counsel of Brown & Williamson, expressing frustration at having to keep two sets of books due to the

paradox that while Defendants refused to admit publicly any health effects of smoking, senior scientists at the Tobacco Research Council actually did "accept the causation" evidence: "The real difficulties that we encountered arose out of the unavoidable paradox at the center of our operations – namely that, on the one hand the manufacturers control TRC's operations and do not accept that smoking has been proved to cause lung cancer while, on the other hand, TRC's research program is based on the working purposes. In addition, the Council senior scientists accept that causation theory. We have not yet found the best way of handling this paradox."

247. Wakeham informed Philip Morris executives on January 10, 1969, that "[n]ow we have a study of the effect of smoking in pregnancy which supports previous conclusions that smoking mothers produce smaller babies" and that the medical field recognized that "smaller babies suffer detrimental effects all through life," including "lower intelligence test scores at age 10."

248. A 1969 Phillip Morris memorandum revealed: "A review of recent mouse skin painting data from the Harrogate Laboratories appearing in progress reports of the Tobacco Research Council (Great Britain) indicates strong support for previously published data on the following points: Cigarette smoke condensate painted on the backs of mice over a two-year period produces tumors in numbers proportionate to the amount of condensate applied. In other words, the dose-response relationship is clearly being followed in these experiments."

249. In the 1960's R.J. Reynolds established a facility in Winston-Salem, North Carolina, to research the health effects of smoking using mice. In the facility that it nicknamed the "Mouse House," R.J. Reynolds scientists researched a number of specific areas, including

studies of the actual mechanism whereby smoking causes emphysema. Internally, a Reynolds-commissioned report favorably described the Mouse House work as the most important of the smoking and health research efforts because it had come close to determining the underlying mechanism of emphysema.

250. By 1969, R.J. Reynolds scientists had produced emphysema in chronic smoke exposed rats. In a 1969 Philip Morris document concerning the biological research program at the Mouse House and the links it showed to smoking and disease, a Philip Morris scientist wrote: "I met Dr. Price from R. J. Reynolds at the CTR-USA meeting of December 11 and 12, 1969. He mentioned doing chronic cigarette smoke exposure studies with rats. The animals received up to 500 cigarettes and emphysema was produced."

251. In 1970, Philip Morris's President complained to R.J Reynolds about the work going on in the Mouse House. Despite the progress made there, R.J. Reynolds responded to the complaint by closing the Mouse House -- disbanding in one day, without notice to the staff, the entire research division, firing all twenty-six scientists at the Mouse House, and destroying years of smoking and health research.

252. Scientists working for Cigarette Company Defendants also recognized the validity of research conducted by Dr. Oscar Auerbach with smoking beagles in the 1960's and early 1970's.

253. Principal Philip Morris scientist Raymond Fagan sent a memorandum to Wakeham, then Philip Morris's Research Director, on "Auerbach's Smoking Beagles" that described his visit to the Auerbach's laboratory to observe a smoking dog and evidence slides.

Fagan observed: "I would say that the experiment is a crude one but effective in that carcinoma in dogs has been produced. . . . The crux of the situation is whether there is general agreement by qualified pathologists that carcinoma . . . has indeed been produced. And even if the cancer production is invalidated the obvious emphysema produced cannot be denied."

254. On January 7, 1969, Wakeham informed his superiors at Philip Morris that "scientific findings suggest that inhalation of fresh cigarette smoke may enhance carcinogenesis."

255. On April 4, 1970, a company researcher manager wrote his managing director of Gallaher Ltd. (American Tobacco Company's British-based sister company) a confidential memo titled "Auerbach/Hammond Beagle Experiment" describing Auerbach's research as "undoubtedly a significant step forward. . . . We believe that the Auerbach work proves beyond reasonable doubt that fresh whole cigarette smoke is carcinogenic to dog lungs and therefore it is highly likely that it is carcinogenic to human lungs." The research manager continued, "[T]he results of the research would appear to us to remove the controversy regarding the causation of the majority of human lung cancer," and "[t]o sum up, we are of the opinion that Auerbach's work proves beyond all reasonable doubt the causation of lung cancer by smoke."

256. After a review of a presentation before the Tobacco Working Group, Lorillard's Alexander Spears admitted that "[t]he slides (shown by Auerbach) represented obvious lung pathology with increased cellular proliferation with smoke exposure."

257. According to Spears, a CTR study in the late 1960s or early 1970s produced tumors in the respiratory tracts of animals exposed to cigarette smoke. In a 1984 deposition, Spears disputed the CTR research results, blaming the tumors on viral infections unrelated to

smoke.

258. Wakeham realized how hard it was to restrict research to the narrow scope required by Defendants' governing myth of "no evidence of harm." In a 1970 memorandum to Philip Morris Chairman Hugh Cullman, Wakeham indicated: "Let's face it. We are interested in evidence which we believe denies the allegation that cigaret smoke causes disease. If the CTR program is aimed in this direction, it is in effect trying to prove the negative, that cigaret smoking does not cause disease. Both lawyers and scientists will agree that this task is extremely difficult, if not impossible."

259. A November 1970 memorandum from Claude Teague to E.E. Vassalo made clear that R.J. Reynolds had engaged in research concerning smoking and health, including animal studies, but further stated that it would try to avoid any future research on smoking and health by farming such research out to industry fronts like CTR:

Yes, we have from time to time in the past, in various circumstances, performed animal experiments in the smoking-health area, in our laboratories. These have been short-term investigations made for various purposes such as: (1) monitoring of experiments published in the scientific literature, (2) evaluation of competitive products alleged to offer advantages to the consumer; and development, on behalf of the tobacco industry, of basic instrumentation for use by independent scientists engaged in basic research on the biological effects of smoking. Currently, we have neither staff nor facilities for performing animal experiments, and no further experiments are planned unless special circumstances arise which may require them. This, of course, reflects our basis consistent conviction the massive, collaborative industry-wide support of long term basic research by independent scientists and scientific organizations already expert in their fields is the most important and effective means for establishing fundamental scientific facts in the area of smoking and health. Thus, we continue our full support of the Council for Tobacco Research-USA, and the research programs of the American Medical Association.

260. CTR and its executives were also aware that Defendants' public statements were false. Robert C. Hockett, CTR's Scientific Director, recognized in 1971 that benzo(a)pyrene, a chemical carcinogen, was easily detected in cigarette smoke.

261. Defendants also reviewed outside research that confirmed that smoke constituents were carcinogenic. A February 14, 1973 research report distributed to Defendants and their outside law firms linked smoking to cancer. The report, titled "Research Report re: Cigarette Smoke Condensate Preparation and Dermal Application to Mice," was prepared by Hazelton Laboratories and submitted to American, Brown & Williamson, Liggett, Lorillard, Philip Morris, R.J. Reynolds, and the law firm of Covington & Burling. It reported that "97 of the 100 mice developed gross lesions in the skin in the area of dermal applications of benzo(a)pyrene." Examination indicated that these were squamous cell carcinomas.

262. In March of 1975, a Lorillard chemist acknowledged in an internal memorandum that smoking posed a health hazard, and speculated about whether a nicotine-free cigarette could possibly reduce risk.

263. BATCo senior scientist S.J. Green questioned the logic of the tobacco industry's stance on smoking and health in the light of its knowledge, stating in an October 27, 1976 memorandum entitled "Cigarette Smoking and Causal Relationships":

The problem of causality has been inflated to enormous proportions. The industry has retreated behind impossible demands for "scientific proof" whereas such proof has never been required as a basis for action in the legal and political fields. Indeed if the doctrine were widely adopted the results would be disastrous. . . . It may therefore be concluded that for certain groups of people smoking causes the incidence of certain diseases to be higher than it would otherwise be.

264. Green developed a "Safety Index for Cigarettes." His model included the following assumptions: "[c]ardiovascular disease is caused to the extent of 15% of all such deaths by cigarette smoking," "95% of all lung cancer deaths are caused by smoking," and "[b]ronchitis deaths are caused in 20% of the cases by smoking cigarettes." He explained: "This is merely an example of what such an index would involve and the sort of assumptions which must necessarily be made or implied. I think it demonstrates clearly that it is not a path we should encourage anyone to follow at present."

265. In September 1977, an R.J. Reynolds scientist asked to meet with company attorneys to discuss a "retrospective epidemiological examination" evidencing the "close relationship between cigarette smoking and lung carcinoma."

266. In February 1978, Rodgman, R.J. Reynolds's Director of Research, wrote a colleague at the company, instructing him to decline an invitation to write a handbook of trace substances found in tobacco. He explained that he had spoken with both in-house and law firm attorneys, who asked: "Why hand the scientists antagonistic to the industry a complete compilation of the information useful to them in their efforts to put us out of business."

267. In an internal document dated February 9, 1979, Peter Lee, a consultant for BATCo, acknowledged that the 1979 Surgeon General's report on smoking and health was, "no doubt . . . an impressive document" and that "[t]he way in which the information was presented was on the whole sound, scientific and emotive." He also predicted that it will become "the Number One basic reference document for smoking and health researchers the world over."

268. Defendants also obtained evidence about the health effects of smoking that was

contrary to their public statements from research they funded. Dr. Gary Huber conducted smoking and health research funded by Defendants from 1972 to 1980 while working at Harvard University Medical School. Huber's research was conducted pursuant to a written agreement between Harvard and B&W, Liggett, Lorillard, R.J. Reynolds, and Philip Morris. The agreement created the Harvard Research Tobacco and Health Program, with Huber as its head and chief investigator.

269. Huber and his group conducted numerous studies into the response of the lung to tobacco smoke using laboratory animals. These studies assessed the effects of smoke on the lung airways, lung parenchyma, and the heart and cardiovascular systems of animals. The studies also looked at COPD, emphysema, chronic bronchitis and coronary artery disease. Huber's animal studies utilized commercially available and research cigarettes, including commercially available cigarettes supplied by Defendants, and produced human-type diseases in the lungs of animals that inhaled cigarette smoke. The inhalation studies demonstrated changes in animal lungs that Huber's group concluded were analogous to human diseases.

270. Huber specifically reported to his sponsors – B&W, Liggett, Lorillard, R.J. Reynolds, and Philip Morris – that his research demonstrated a response to inhaled cigarette smoke, including disease mechanisms similar to those associated with diseases in humans.

271. Huber also conducted research funded by Defendants that studied changes in human smoking behavior as a function of lower and higher nicotine levels in cigarettes. The research, discussed at greater length in Section IV.B below found, *inter alia*, that smokers of lower nicotine cigarettes had an increased risk of developing pulmonary disease. Huber found

that "compensation," or smoking behavior modifications, exhibited by smokers of lower nicotine cigarettes, rendered such cigarettes potentially more harmful than high nicotine counterparts because deeper inhalation carried the smoke deeper into the lung where adenocarcinoma generally occurs.

272. Another group of inhalation studies conducted by Huber focused on rats. The research showed that rats exposed to cigarette smoke developed emphysema. Huber reported these results to Defendants.

273. Huber had frequent contact with scientists working for Defendants, including Alexander Spears of Lorillard, Alan Rodgman of R.J. Reynolds, and Thomas Osdene of Philip Morris, but Huber's access to them was controlled by Defendants' attorneys. Additionally, Spears made several site visits to Huber's laboratory and reviewed his progress reports. Spears admitted that the research conducted by Huber concluded that tobacco smoke caused changes in the respiratory tracts of the animals consistent with chronic obstructive lung disease.

274. On September 26, 1977, Philip Morris's Assistant General Counsel, Alexander Holtzman, sent a warning to the company President, Joseph Cullman, informing him that the results from the Harvard Project had led Huber to the conclusion that exposure of rats to cigarette smoke for six months causes emphysema and that a paper announcing the results would be delivered at the American College of Chest Physicians meeting the next month. Holtzman indicated that attorney William Shinn of Shook, Hardy & Bacon, under the direction of the industry counsel at the Tobacco Institute, had been sent to change Huber's mind on the results and causation, but the attorney did not succeed in altering the scientists' interpretation of the

results of this study. The Tobacco Institute prepared a press release to mitigate the damage in the event Huber's interpretation received any media attention.

275. In 1980, Huber sought to continue his research on animals at a time when he was making significant progress in his smoking and health research, but Defendants cut off funding for his research at Harvard and denied his request for funding after he moved later that year to the University of Kentucky. In a 1980 meeting at a Boston hotel, Defendants' attorneys told Huber that the reason funding for his research had been discontinued was because he was "getting too close to some things." The attorneys included Lee Stanford from Shook, Hardy & Bacon, Ernest Pepples from B&W, and Arthur Stevens from Lorillard.

276. Internal recognition of the validity of mainstream scientific investigation also continued. In 1978, Philip Morris researchers wrote: "Other nitrosamine compounds have been found in tobacco and tobacco smoke. Hecht determined the levels of N'-nitrosornicotine ("NNN") and N'-nitrosoanabasine ("NAB") using gas-liquid chromatography and mass spectrometry. NNN was found in the unburned tobacco at concentrations between 0.3 and 88.6 micrograms per gram. NNN levels are related to the increased of cancer of the oral cavity, esophagus and nasopharynx observed in tobacco chewers."

277. In a 1980 memorandum, BATCo fully recognized that it was implausible to continue to deny the internal evidence linking smoking with diseases when it stated the following: "The company's position on causation is simply not believed by the overwhelming majority of independent observers, scientists and doctors. . . . The industry is unable to argue satisfactorily for its own continued existence, because all arguments eventually lead back to the

primary issue of causation, and on this point our position is unacceptable." BATCo then went on to admit causation: "On balance, it is the opinion of this department that we should now move to position B, namely, that we acknowledge 'the probability that smoking is harmful to a small percentage of heavy smokers'. . . . By giving a little we may gain a lot. By giving nothing we stand to lose everything."

278. In 1980, BATCo internally admitted: "It is simply incorrect to say, 'There is still no scientific proof that smoking causes ill-health.'" And yet Defendants continued to do exactly that, throughout the 1970s, 1980s, 1990s, and beyond.

279. While Defendants' campaign of public false statements continued pursuant to the strategy initially conceived by the Enterprise in December 1953, internal documents provided further confirmation of their longstanding knowledge of the falsity of their public position.

280. Philip Morris scientist James Charles (who would later serve as the company's Vice President of Research) addressed a February 23, 1982 memorandum to department head Osdene, responding to the 1982 Surgeon General's Report on Smoking and Health: "[C]igarette smoke is biologically active" and "cigarette smoke condensate applied to the backs of mice causes tumors." He listed nine facts on the biological activity of cigarette smoke and told Osdene "you may shred this document . . . or use [it] in any way you see fit."

281. BATCo's initial inclination toward candor, admitting causation, quickly dissolved when its affiliate, Brown & Williamson, informed BATCo that conceding causation would be tantamount to going out of business, especially in light of smoking and health litigation in the United States.

282. In May 4, 1982, a BATCo consultant, Francis Roe, found the industry position on causation "short of credibility," noting that "[i]t is not really true, as the American Tobacco industry would like to believe, that there is a raging worldwide controversy about the causal link between smoking and certain disease."

283. In early 1984, BATCo, concerned about the "biological activity" of its product, explicitly recognized the connection between smoking and lung cancer, heart disease, and emphysema, as well as the problems that arise from maternal smoking during pregnancy. The same year, BATCo also internally recognized the ability of epidemiological studies to demonstrate causation.

284. R.J. Reynolds's recognition of the validity of epidemiological and scientific studies led Anthony V. Colucci, Director of the company's Scientific Litigation Support Division, to write to attorney James E. Young of Jones, Day, Reavis & Pogue to push the "mechanistic argument" of causation. Colucci explicitly admitted: "That cigarettes are a risk factor for human lung cancer is an irrefutable fact."

285. Lorillard was aware at the latest in 1997 that every major medical and scientific group in America that had studied the question has concluded that smoking causes disease. The company was equally aware that the only scientific studies to disagree with that conclusion were performed or funded by the tobacco industry.

(j) Despite Their Internal Knowledge, Defendants Continued Their Public Campaign of Denial from 1975 Onward

286. Despite these candid internal acknowledgments that cigarette smoking caused

disease, internal and commissioned research confirming the accuracy of results of studies in the public health community, and conclusions of the Surgeon General, Defendants' public position remained the same. They continued to make false statements in an effort to perpetuate the notion of an "open controversy." They continued to deny the serious health risks posed by smoking.

287. On January 14, 1975, the Tobacco Institute released a new announcement of the availability of the booklet "The Cigarette Controversy." This announcement stated that "[i]f smoking does cause disease, why after years of intensive research, has it not been shown how this occurs? And why has no ingredient as found in smoke been identified as the causal factor? These are among the unanswered questions set forth in a new publication of the Tobacco Institute, entitled The Cigarette Controversy."

288. Distribution of "The Cigarette Controversy" aided the goal of spreading the industry's statements about smoking and health to the public. While this booklet was published and most often distributed by the Tobacco Institute, the individual tobacco companies also made efforts to circulate this publication to its consumers. For example, on March 26, 1976, R.J. Reynolds wrote in reply to a consumer's concern that cigarettes are a cause of lung cancer. R.J. Reynolds, without a request for the pamphlet, included a copy of "The Cigarette Controversy" in this response letter.

289. In addition to flat out denials of the health consequences of smoking, advertising was a vehicle through which the Cigarette Company Defendants provided rationalization to the smoker. As B&W stated in a November 29, 1976 memo entitled "Cigarette Advertising History": "Good cigarette advertising in the past has given the average smoker a means of

justification on the two dimensions typically used in anti-smoking arguments: [health threats and immorality] . . . All good cigarette advertising has either directly addressed the anti-smoking arguments prevalent at the time or has created a strong, attractive image into which the besieged smoker could withdraw."

290. R.J. Reynolds continued to represent that there was no evidence of adverse health effects caused by smoking in a 1977 document entitled "Scientific and Medical Aspects of the Smoking and Health Controversy -- Some Paradoxes and Fallacies." Dr. Frank Colby, a lead scientist for R.J. Reynolds, stated that "no component or group of components, as found in smoke, has ever been proven to be the cause of any disease in man." Colby added: "The smoking and health controversy is a very important question; our Industry has been -- and is, of course, trying to provide the answer. If there ever should be any component or components, as found in smoke, that can be proven to be, or contribute to be, a cause of any disease in man, we will of course, take them out."

291. On June 6, 1977, Addison Yeaman, B&W's General Counsel, publically explained in his remarks at Maxwell Associates Biannual Tobacco Seminar: "I am utterly secure in saying to you that the tobacco industry recognized its responsibility and its duty and that it will continue its every effort and at whatever cost to find the answer to the question, 'what part, if any, does tobacco play in human diseases.'"

292. In a document distributed by B&W entitled "Facts Every Tobacco Man Should Remember," which appeared in the October 27, 1977 edition of the United States Tobacco Journal, B&W claimed that "[t]he case against tobacco is not closed . . . in a sense, the jury still

isn't able to retire to consider the case because it doesn't have all the relevant facts." B&W also stated in that document that the results of scientific studies regarding the health effects of smoking are "inconclusive."

293. The Tobacco Institute's public relations strategy was to focus as much attention as necessary in order to get the Enterprise's message out to the public that there was no definite link between smoking and health, and that until answers to these questions were found, smokers should not fear that their health was endangered. Defendants' four-point platform is set out in a December 29, 1977 Tobacco Institute press release: "1. The question of smoking and health is still a question requiring scientific resolution. 2. Tobacco smoke does not imperil normal smokers. 3. The tobacco farm program is an essential part of public policy. 4. The freedom of choice of our industry's customers must be preserved."

294. In 1977, the Tobacco Institute published a pamphlet that stated: "Has the Surgeon General's report established that smoking causes cancer or other diseases? No."

295. Defendants focused much of their public relations campaign on lung cancer and, increasingly, heart disease. In 1978, a Tobacco Institute pamphlet falsely stated: "The flat assertion that smoking causes lung cancer and heart disease and that the case is proved is not supported by many of the world's leading scientists."

296. On January 12, 1978, Ross Millhiser, President of Philip Morris, stated in a letter to the editor in the New York Times, "as for the lack of research on the 'harmful' effects of smoking, the fact is there is good reason to doubt the culpability of cigarette smoking in coronary heart disease."

297. In May 1978, the Tobacco Institute published a fifty-four page document entitled "Fact or Fancy?" and sent it to broadcasters, editors, writers, and officers of women's associations and organizations "because the tobacco and health controversy has increasingly focused on women and smoking." The document was produced "to present more factual and balanced answers on the health question about which mature women need to know more" and it presented the controversy argument that causality has not yet to be proved in any of the diseases and conditions linked statistically with cigarette smoking.

298. Defendants also continued to insist publicly that there was no need to undertake research to develop "safer" cigarettes, based on their assertion that no harm could be attributed to cigarettes. In June 1978, William Dwyer, Vice President of the Tobacco Institute, explained: "A question often asked of the tobacco industry is whether researchers are developing a 'safe' cigarette. A variation of that question is whether low 'tar' nicotine cigarettes are safer. The tobacco industry is convinced that no cigarette has been proved unsafe. Therefore, they regard any suggestion of a 'safe' or 'safer' cigarette as tortured logic. The reduced 'tar' and nicotine cigarettes represent about 20 percent of sales and are in the marketplace because of consumer demand. That demand obviously reflects the personal preferences of smokers."

299. The Tobacco Institute published "The Smoking Controversy: A Perspective" in December 1978. Citing heavily to scientists who had received CTR Special Project and lawyers' Special Account No. 4 funds for their research, the publication stated that society was on the "brink of paranoia" regarding smoking, that "the onslaught has grown shrill, even hysterical" and that there was a parallel to the Salem witch trials. It stated that the "wars" against disease that

were being "waged by the government and voluntary health agencies" are being taken "beyond the realm of science."

300. In 1979, the Tobacco Institute published a document entitled "TOBACCO from seed to smoke amid controversy." It declared that "it has not been established that smoking causes any human disease."

301. Beginning around the time of the 1979 Surgeon General's Report, Defendants pursued with increasing vigor the strategy that the smoking and health evidence represented an "open controversy" and made unreasonable demands that "more proof" was needed before the scientific community could jump to the conclusion that cigarette smoking kills its users. On January 10, 1979, the Tobacco Institute published a document entitled "Smoking and Health 1964-1979: The Continuing Controversy." The Tobacco Institute prepared it for distribution to the news media one day prior to the release of the 1979 Report of the Surgeon General on Smoking & Health and tailored it to respond to the content of the 1979 Report. The Tobacco Institute had managed to obtain three draft chapters of the Surgeon General's Report which assisted it in the development of the publication. Anne Duffin was assigned the responsibility at the Tobacco Institute of researching, writing and editing the report, under the direction and guidance of the law firm Shook, Hardy & Bacon.

302. In further anticipation of the 1979 Report, the Tobacco Institute ran advertisements in media publications in early January containing the headline: "The Secretary of Health, Education and Welfare Cordially Invites you to A One-Sided Debate."

303. BATCo consultant Peter Lee characterized "Smoking and Health 1964-1979: The

Continuing Controversy" (referred to as "TA73") as "misleading." He wrote that the Tobacco Institute's counter publication did not appear to understand the idea of medical causation:

"Discussion of the role of other factors can be particularly misleading when no discussion is made of relative magnitudes of effects. For example, heavy smokers are observed to have 20 or more times the lung cancer rates of non-smokers. Sure, this does not prove smoking causes lung cancer, but what it does mean, and TA73 never considers this, is that for any other factor to explain this association, it must have at least as strong an association with lung cancer as the observed association for smoking (and be highly correlated with the smoking habit). TA73 seems ready to accept evidence implicating factors other than smoking in the aetiology of smoking. This is blatantly unscientific."

304. Philip Morris 1979 Annual Report continued the "open controversy" strategy and declared, "[N]o conclusive clinical or medical proof of any cause-and-effect relationship between cigarette smoking and disease has yet been discovered."

305. On January 11, 1979, the News and Observer of Raleigh, North Carolina, quoted the Tobacco Institute as stating that "many scientists are becoming concerned that the focus on cigarette smoking diverts attention from other suspected health hazards."

306. On January 17, 1979, the Tobacco Institute issued a press release which stated that the tobacco industry had spent \$75 million on research over twenty years to learn whether smoking is harmful but that "the case against cigarettes is not satisfactorily demonstrated."

307. In the July 1979, the Tobacco Institute announced to the public that "[f]rom the beginning, the tobacco industry has believed that the American people deserve objective,

scientific answers." Moreover, its advertisement stated in bold type: "The findings are not secret."

308. Internal documents showed that smokers relied on Defendants' public refutation of causation. Indeed, substantial numbers of smokers invoked Defendants' fraudulent public relations campaign. According to a 1979 study by BATCo, less than 50% of consonant smokers agreed that smoking was harmful. Those smokers most often cited the industry's mantra, "no one has proved it," as reason for their belief. A December 1982 focus group study of smokers prepared for R.J. Reynolds in Minnesota concluded that smokers rationalize the risks of smoking and that they "discounted the statistical risk of smoking."

309. The Roper Report was a biannual survey conducted by Roper Organization, a public relations firm specializing in corporate reputation building and public image, on behalf of the Tobacco Institute. In the 1980 report entitled "A Study of Public Attitudes towards Cigarette Smoking and the Tobacco Industry (May 1980)," the Roper Organization asserted the following findings: "The study finds that there are differences between smokers and non-smokers in demographics, health habits, and lifestyle. Presumably, these differences (rather than smoking itself) could account for the different disease and mortality rates observed between smokers and non-smokers."

310. In 1981, the Tobacco Institute published a document entitled "On Smoking - 21 questions and answers," written by the law firm Shook Hardy & Bacon, which stated: "The tobacco industry has committed more than \$91 million for independent research on smoking and health questions. . . . The tobacco industry remains committed to advancing scientific inquiry

into the gaps in knowledge in the smoking controversy."

311. In 1982, the Tobacco Institute launched a national series of advertisements on behalf of Defendants that addressed smoking and health issues, environmental tobacco smoke ("ETS"), public smoking restrictions, and youth smoking. These ads asked readers to keep an open mind on tobacco issues and "[w]eigh both sides before [they] take sides." Readers were encouraged to request a free copy of the Tobacco Institute's booklet "Answers to the Most Asked Questions about Cigarettes."

312. On December 31, 1981, the Tobacco Institute published a document that again asserted: "[Q]uestions of smoking and health are unresolved."

313. In 1982, the Tobacco Institute published a pamphlet in which it wrote, "Since the first questions were raised about smoking as a possible health factor, the tobacco industry has believed that the American people deserve objective, scientific answers. The industry has committed itself to this task."

314. On February 18, 1982, "Smoking and Cancer – A Scientific Perspective" was published by the Tobacco Institute in anticipation of the release of the 1982 Surgeon General's Report on Smoking and Health. The timing of the release was based on the Tobacco Institute's axiom that "it is more effective to take the initiative in situations involving a prospective negative news event." The press release accompanying the 104-page Tobacco Institute document stated that scientific research has not been able to establish a causal link between smoking and cancer. The publication was developed working closely with outside legal counsel. Copies were provided to correspondents and to various Members of Congress with a transmittal that reiterated

Defendants' false commitment to independent research. It was later introduced as part of testimony in opposition to amendments to the Federal Cigarette Labeling and Advertising Act.

315. A May 7, 1982 memorandum to R.J. Reynolds executives advised that the key point to be made in any discussion of the issue of smoking and health was that a scientific controversy continued unresolved. The question and answer piece provided R.J. Reynolds's public positions on causation (not proven), statistics (not reliable), and research (not enough yet). The insistence on an open controversy in 1982, along with the company's other positions, was contrary to at least twenty-nine years of internal research at R.J. Reynolds, as well as more than three decades of conclusive mainstream scientific study.

316. In June 1982, the Tobacco Institute launched a national series of advertisements appearing in some of the country's most widely read magazines (including US News & World Report, TV Guide, Time, Sports Illustrated, People, and Newsweek), attempting to reach eight out of ten Americans twenty-five years or older. The advertisements asked readers to keep an open mind on tobacco issues and to "weigh both sides before you take sides." It offered a free copies of a booklet "Answers to the Most Asked Questions about Cigarettes."

317. In 1983, in anticipation of a 1983 Surgeon General's Report, "The Health Consequences of Smoking – Cardiovascular Disease," the Tobacco Institute published a document titled "Cigarette smoking and heart disease." It concluded, "Whether cigarette smoking is causally related to heart disease is not scientifically established" and argued that smoking was not an important risk factor for heart disease. The document was first distributed to the Cigarette Company Defendants, who were asked not to distribute the publication widely, but to use it for

internal purposes until the Report was released. Upon release, the Tobacco Institute distributed the document, as did the industry's European information clearinghouse, known as "INFOTAB."

318. Sheldon Sommers, Scientific Director of CTR, testified before Congress that year that "cigarette smoking has not been scientifically established to be a cause of chronic diseases, such as cancer, cardiovascular disease, or emphysema."

319. In 1983, R.J. Reynolds published its own advertisement in an effort to perpetuate the "open controversy." The advertisement declared: "It has been stated so often that smoking causes cancer, it's no wonder most people believe this is an established fact. But, in fact, it is nothing of the kind. The truth is that almost three decades of research have failed to produce scientific proof for this claim. . . . [I]n our opinion, the issue of smoking and lung cancer is not a closed case. It's an open controversy."

320. In August 1983, D.G. Felton, a BATCo scientist, while commenting on a paper written by R.J. Reynolds scientist Frank Colby, concluded that based on mainstream scientific knowledge, "to persist in stressing controversy . . . can only result in a complete loss of credibility."

321. In 1984, R.J. Reynolds placed an ad in numerous newspapers, including the New York Times, entitled "Smoking and health: some facts you've never heard about." This ad contained the statement, "You hear a lot these days about reports that link smoking to certain diseases. This evidence has led many scientists and other people to conclude that smoking causes these diseases. But there is significant evidence on the other side of this issue. It is regularly ignored by the critics of smoking. And you rarely hear about it in the public media.

But, it has helped persuade many scientists that the case against smoking is far from closed."

Further, the ad contained the statement, "No one wants to know the real answers more than R.J. Reynolds. That is why we are providing major funding for scientific research. The funds are given at arm's length to independent scientists who are free to publish whatever they find. We don't know where such research may lead. But this much we can promise: when we find the answers, you'll hear about it."

322. In 1983, the Tobacco Institute published a pamphlet entitled "Tobacco Industry Research on Smoking and Health: A \$111 Million Commitment." This pamphlet stated: "Since the first questions were raised about smoking as a possible health factor, the tobacco industry has believed the American people deserve objective, scientific answers. The industry has committed itself to this task."

323. Also in 1984, R.J. Reynolds placed an ad in daily newspapers entitled, "Can we have an open debate about smoking?" In this ad, R.J. Reynolds claimed that "studies which conclude that smoking causes disease have regularly ignored significant evidence to the contrary," that this "significant evidence" comes from research "completely independent of the tobacco industry," and that "reasonable people" would consider the link between smoking and disease to be an "open controversy."

324. In January 1984, David B. Fishel of R.J. Reynolds continued to parrot the line of the Enterprise when he publicly declared: "After all of this study, there are many scientists who believe there is no laboratory or clinical proof that cigarette smoke does – or does not – cause disease. We believe that reasonable people who examine all the evidence concerning smoking

and disease would agree this is an open scientific controversy, not a closed case."

325. A month later, the Chairman of the Board at R.J. Reynolds made the following comments as part of a panel discussion on the "Nightline" television program: (1) it is not known whether cigarettes cause cancer; (2) despite all the research to date, there has been no causal link established (between smoking and emphysema); and (3) "as a matter of fact, there are studies that while we are accused of being associated with heart disease, there have been studies conducted over 10 years that would say, again, that science is still puzzled over these forces."

326. The same year, the Tobacco Institute published a document entitled: "Cigarette Smoking and Chronic Obstructive Lung Diseases: The major gaps in knowledge." It declared that Defendants did not agree with the judgment of the Surgeon General's reports that cigarette smoking had been established as a cause of chronic bronchitis and that a causal relationship between smoking and either chronic bronchitis or emphysema has not been established scientifically.

327. Also in 1984, the Tobacco Institute published a report entitled "The Cigarette Controversy: Why More Research is Needed" as the formal statement of Defendants' joint position. It purported to be a review of testimony at the 1982 and 1983 congressional tobacco labeling hearings. It discussed the testimony of the thirty-nine scientists who testified to Congress, but undisclosed was the fact that most of these scientific witnesses were tobacco consultants receiving fund from the lawyer administered and controlled Special Account No. 4. It stated:

Thirty nine scientists presented testimony against proposals in the bills.
Their evidence was based on their own published research or their review

of scientific literature. Each of them in his or her own right is a recognized scientist, and most have reached eminence in their area of expertise. . . . The evidence presented by these men and women is summarized in the following pages. The scientists and their professional affiliations are listed in the appended. We publish this summary in the belief that the controversy about smoking must be resolved by scientific research and in the belief that informed discussion of the controversy is in the public interest. . . . [F]ifteen witnesses explained why they consider the hypothesis that cigarette smoking causes lung cancer to be unproven . . . [W]itnesses all questioned the assertion that cigarette smoking causes emphysema in particular and chronic obstructive lung disease in general.

The report also declared that: "This publication is presented to the United States congressional committees."

328. In July 1984, R.J. Reynolds mailed letters from employee Ann Griffin addressed to various children who had written to the company. In the letters, R.J. Reynolds claimed to be engaged in an effort to determine the harmful effects of smoking for the benefit of smokers, promised to support disinterested research into smoking and health, and claimed that research had not revealed any "conclusive" evidence linking smoking to disease.

329. In a July 1984 deposition, Lorillard's Alexander Spears declared that there were no epidemiological studies that could be designed or conducted to determine if cigarette smoking played a role in lung cancer development.

330. In January 1987, the Tobacco Institute's Vice President of Media Relations, Walker Merryman, appeared in an advertisement where he was quoted as saying, "I'll fill in the government's blanks. No judge or jury would decide a case without hearing both sides. But a lot of people have done just that on the subject of smoking."

331. Over time, R.J. Reynolds sent numerous letters to survivors of deceased smokers,

falsely denying the scientifically established links between smoking and disease. For instance, on August 18, 1988, R.J. Reynolds sent a letter to Mr. Anthony A. Christina (the widower of a lung cancer victim) in which the company denied that there was any causal link between smoking and disease. On April 12, 1990, R.J. Reynolds wrote a letter to a customer in Minnesota in which it asserted that "scientists do not know the cause or causes of the chronic diseases reported to be associated with smoking. . . . [O]ur company intends, therefore, to continue to support [research] in a continuing search for answers." In November 1993, R.J. Reynolds wrote to the relative of a deceased smoker in California, denying the existence of any proof that smoking causes lung cancer, heart disease, or emphysema, and asserting that "a cause and effect relationship between smoking and disease has not been established."

332. In 1989, R.J. Reynolds created a position paper which purported to refute the 1989 Surgeon General's Report by attacking the science linking smoking to disease.

333. In a January 11, 1989 appearance on the television show "Good Morning America," the Tobacco Institute spokesperson, Brennan Dawson falsely stated that "all the links that have been established between smoking and certain diseases are based on statistics. What that means is that the causative relationship has not yet been established."

334. In January 1990, R.J. Reynolds' Public Relations Manager wrote in a letter to the principal of a grade school and one of the school's students:

The tobacco industry is also concerned about the charges being made that smoking is responsible for so many serious diseases. Long before the present criticism began, the tobacco industry, in a sincere attempt to determine what harmful effects, if any, smoking might have on human health, established the CTR - USA. The industry has also supported research grants directed by the American Medical Association. Over the

years the tobacco industry has given in excess of \$162 million to independent research on the controversies surrounding smoking – more than all the voluntary health associations combined. . . . Despite all the research going on, the simple and unfortunate fact is that scientists do not know the cause or causes of the chronic diseases reported to be associated with smoking.

335. More than forty years after Defendants issued the Frank Statement and invented TIRC, Defendants' essential position on the relationship of smoking and health had remained largely unchanged. In April 1994, over forty years after the Frank Statement, in congressional hearings before the Subcommittee on Health and the Environment, industry executives asserted yet again that the causal relationship of smoking and cancer had not been proven. In testimony before the United States House of Representatives, the CEOs of Defendants Brown & Williamson, Liggett, Lorillard, Philip Morris, and R.J. Reynolds publicly denied that smoking caused cancer. And the campaign went on.

336. In April 1995, B&W informed B&W Japan to answer inquiries about smoking and health by reassuring the person making the inquiries that whether or not smoking cause diseases "is still [an] inconclusive matter."

337. In 1997, the Chief Executive Officer and Chairman of Philip Morris Companies, Geoffrey Bible, took the position that cigarettes were not a cause of lung cancer, but asserted that if they were shown to be, "I'd probably . . . shut [the] company down instantly to get a better hold of things." He made this statement four decades after Philip Morris recognized the carcinogenic and disease-causing nature of cigarettes in internal documents.

338. In 1998, Bible publicly denied the link between smoking and disease. At the 1998 Minnesota trial testimony during cross examination, Mr. Bible was asked: "Your company says

smoking doesn't cause disease; don't you?" Mr. Bible responded, "I say I don't know. I just don't know. It may, but I don't know." Mr. Bible was also asked: "Has your company said smoking causes disease?" Mr. Bible answered, "Not to my knowledge, no."

339. As reported in the New York Times, Bible was asked, "Has anyone died from smoking cigarettes?" His reply: "I don't know if anyone died from smoking tobacco, I just don't know."

340. In trial in Minnesota in 1998, the Chairman of Philip Morris and the Vice President of the Tobacco Institute returned to the industry's half-century old position: "We don't believe it's ever been established that smoking is a cause of disease."

341. In the development of its website in 1999, Philip Morris acknowledged internally that smoking causes disease but refused to share this information with the public. In a July 9, 1999 presentation related to the website development prepared by someone associated with Philip Morris's Strategic Issues Task Force, one slide indicated that, according to the "Scientists' Position on Causation," "from a public health perspective, it is appropriate to equate increased risk with causation." However, Philip Morris did not publicly communicate this information.

342. Defendants also falsely denied what they knew internally in legal proceedings. On November 29, 1999, Philip Morris falsely stated in sworn pleadings: "[I]t has not been scientifically established whether cigarette smoking causes [disease] in humans."

343. Executives have falsely denied Defendants' decades-long "open controversy" strategy. Denise Keane, Philip Morris general counsel and an attorney at the company since 1977, discounted the "open controversy" on October 2, 2002, when he stated "[f]rom my

perspective, Philip Morris has not historically discussed smoking" publicly until the 1997 statement submitted to Senator Hatch and its 1999 website. "This company, in my knowledge, has not been out historically doing anything to communicate about the health risks other than to sell a product for which there is a whole series of warnings that are communicated to the public." She added: "[T]his company has not been out doing anything to impact or undermine the very important message that has been carried on cigarette products that have been sold in this country since the late 60's."

344. Based on responses to Interrogatories and Requests for Admission in this case, it is clear that Defendants still refuse to publicly admit what they have known and acknowledged internally for 50 years. That smoking causes lung cancer, heart disease, emphysema, and other diseases is universally accepted by medical and scientific authorities, yet Lorillard, BATCo, and Brown & Williamson still qualify their statements on causation, and R.J. Reynolds acknowledged only that smoking "may contribute to causing . . . diseases in some individuals."

345. And while Defendants have grudgingly made certain concessions in the form of qualified admissions such as the foregoing that cigarette smoking can cause certain diseases, Defendants' decades-long campaign to falsely and fraudulently deny the harmful effects of smoking continues in the form of their intense efforts to mislead the public as to the link between ETS exposure and disease.

(4) Defendants Developed and Embarked upon an Identical Strategy to Fraudulently Dispute the Health Risks of Exposure To Environmental Tobacco Smoke

346. Evidence on the health risks of passive exposure, or exposure to environmental

tobacco smoke ("ETS"), comes from epidemiological studies, which have directly assessed the associations of ETS exposure with disease outcomes, and also from knowledge of the components of ETS and their toxicities.

347. Conclusions about the causality of association between ETS exposure and health outcomes are based not only on epidemiological evidence, but also on the extensive evidence derived from epidemiological and toxicological investigation of active smoking. Additionally, studies using biomarkers of exposure and dose, including the nicotine metabolite cotinine and white cell adducts, document the absorption of ETS by exposed nonsmokers, adding confirmatory evidence to the observed associations of ETS with adverse effects.

348. ETS exposure of infants and children has adverse effects on respiratory health, including increased risk for severe lower respiratory infections, middle ear disease (otitis media), chronic respiratory symptoms and asthma, as well as a reduction in the rate of lung function growth during childhood, and causes sudden infant death syndrome and cognitive and behavioral disorders.

349. In adults, ETS exposure causes lung cancer and ischemic heart disease. ETS exposure causes two to three percent of all lung cancer cases. In 1986, the Surgeon General and the National Research Council of the National Academy of Sciences concluded that passive smoking causally increases the risk of lung cancer in nonsmokers.

350. The 1986 Surgeon General's Report specifically examined the health consequences of involuntary exposure. The Surgeon General explained:

The current Report, *The Health Consequences of Involuntary Smoking*, examines the evidence that even the lower exposure to smoke received by

the nonsmoker carries with it a health risk. Use of the term "involuntary smoking" denotes that for many nonsmokers, exposure to ETS is the result of an unavoidable consequence of being in proximity to smokers. It is the first Report in the health consequences of smoking series to establish a health risk due to tobacco smoke exposure for individuals other than the smoker, and represents the work of more than 60 distinguished physicians and scientists, both in this country and abroad. After careful examination of the available evidence, the following overall conclusions can be reached:

1. Involuntary smoking is a cause of disease, including lung cancer, in healthy nonsmokers.
2. The children of parents who smoke, compared with the children of nonsmoking parents, have an increased frequency of respiratory infections, increased respiratory symptoms, and slightly smaller rates of increase in lung function as the lung matures.
3. Simple separation of smokers and nonsmokers within the same air space may reduce, but does not eliminate, exposure of nonsmokers to environmental tobacco smoke.

351. Evidence also links ETS to exacerbation of asthma, reduced lung function, and respiratory symptoms.

352. Defendants undertook concerted action in response to the foregoing scientific conclusions and evidence. The evidence linking ETS exposure to disease represented a threat to the social acceptability of smoking. Defendants viewed it as a crisis for the Enterprise and responded accordingly.

353. Defendants' response to the emerging scientific evidence was controlled by their attorneys. Attorneys were involved in the selection and management of "research" projects through front organizations like CTR and various ETS committees; attorneys were involved in the management of misinformation campaigns through the Tobacco Institute and international

organizations like the International Tobacco Information Center/Centre International d'Informatin Du Tabac (INFOTAB). Donald Hoel of Shook, Hardy & Bacon and John Rupp of Covington & Burling were predominant among the lawyers supporting the efforts of the Enterprise, which resulted in furthering the scheme to defraud. Hoel worked in a number of Defendants' ETS committees from the 1970s until 1993. In an internal Shook, Hardy & Bacon memorandum, Hoel admitted that his law firm was "instrumental in organizing the tobacco industry's response to the ETS issue."

354. Hoel and fellow Shook, Hardy & Bacon attorney Patrick Sirridge were part of an ad hoc advisory group made up of tobacco company scientists and outside law firm lawyers that was organized to coordinate the tobacco industry's response to the emerging ETS issue in the mid-1970s. The lawyers assisted in contracting outside scientists and in generating scientific studies designed to yield evidence beneficial to the litigation and public relations position of Defendants.

355. According to a handwritten note dated November 5, 1975, industry lawyers such as Ed Jacobs of Jacobs & Medinger wanted any notes taken by members of the ETS Advisory Group led by Hoel destroyed.

356. Notes from a July 1976 meeting of Defendants' Research Liaison Committee show not only that outside law firms and the Committee of Counsel controlled what scientific research Defendants engaged in with regard to ETS exposure, as opposed to the independent scientists that the Defendants represented would control CTR's research funding. The notes specifically indicated that records relating to review of scientific projects by outside law firms

and the Committee of Counsel should not be kept.

357. An effort to cover evidence of the role of lawyers in designing favorable ETS exposure research was also made by Shook, Hardy & Bacon attorney William Shinn. In a 1978 memorandum, Shinn described Special Account No. 4 to the Committee of Counsel. Special Account No. 4 used funds contributed by the Cigarette Company Defendants for research for litigation purposes, including ETS exposure projects. Shinn instructed that notes of how the account worked and was administered should not be retained.

358. In the mid 1980s, Rupp assembled an Indoor Air Pollution Advisory Group ("IAPAG") on behalf of the Tobacco Institute. IAPAG was a group of scientists organized to advise the Tobacco Institute on scientific issues related to ETS exposure and to provide favorable testimony at legislative hearings. The group included Rupp, Gray Robertson (Chief Executive Officer of ACVA Atlantic, Inc., later renamed Healthy Buildings International), and Dr. Sorell L. Schwartz. Representatives from Defendants attended IAPAG scientific meetings. While IAPAG reported to Rupp, key IAPAG member Schwartz, a Georgetown University scientist who provided consulting and testifying services to the Tobacco Institute and to Defendants on ETS matters, understood Hoel to be the most significant player on ETS matters within the industry.

359. Schwartz received money from the Tobacco Institute in exchange for favorable public testimony about ETS matters before at least one United States Senate subcommittee, but the payment was not publicly disclosed.

360. By 1987, Schwartz believed that the Tobacco Institute was pressuring IAPAG to do more public relations work for the industry rather than science, contrary to the stated purpose

of the group. He was further discouraged upon learning that Hoel had lied to him about Defendants' role in a symposium that had been held in Vienna, Austria, telling Schwartz that he and Defendants had no involvement whatsoever in organizing the symposium. A public affairs employee at Philip Morris later admitted to Schwartz that Hoel had organized the symposium himself.

361. In the fall of 1984, at the specific direction of the Committee of Counsel, Hoel was asked to reconvene the committee he had helped run in the 1970s to coordinate Defendants' efforts on ETS, including the generation of scientific evidence to defend the tobacco industry's liability positions. This group was named the ETS Advisory Group, but was also referred to as the "Hoel Committee" after its chairman. The Hoel Committee operated not only as the ETS Advisory Group, but under a variety of different names.

362. The Hoel Committee was made up of tobacco company scientists, in-house counsel, outside law firm attorneys, and public relations experts from the Tobacco Institute. In addition to Hoel, some of the committee meeting attendees were: Bill Davis of Shook, Hardy & Bacon; John Rupp and Michael Michaelson of Covington & Burling; Alexander Spears from Lorillard; Charles Green, Guy Oldaker, and attorney Mary Ward of R.J. Reynolds; Thomas Osdene and Robert Pages of Philip Morris; J.G. Estlerle of Brown & Williamson; and Marvin Kastenbaum and William Kloepfer of the Tobacco Institute. The group met monthly. While Liggett and American Tobacco did not participate directly, they contributed funding to the committee activities.

363. The Committee of Counsel did not merely demand the creation of the ETS

Advisory Group, it remained involved in the efforts of the Hoel Committee and oversaw its activities. The Committee of Counsel set guidelines for the types of scientific research that Hoel could direct his committee to engage in or fund. For instance, notes of a November 2, 1984 ETS Advisory Group meeting indicate that the group was given guidelines from the Committee of Counsel that no "body fluid" testing should have been done. Hoel and Rupp regularly briefed the Committee of Counsel on Hoel Committee activities. Along with the rest of the Hoel Committee, they made recommendations on which ETS projects to fund and, with the Committee of Counsel's approval, funded research as CTR Special Projects, with the intention that the ties between recipients and Defendants remain hidden.

364. The research directed by the Hoel Committee and its successor, the Center for Indoor Air Research ("CIAR"), was not only used for litigation and public relations, but it was also funded research designed not to find answers to health questions, but solely to attack legislative initiatives related to ETS exposure. Lawyers specifically engineered and constructed scientific studies to get results that would be useful for public relations, litigation, and legislative battles, as opposed to results that would assist the scientific community in further understanding the health effects of ETS exposure.

365. At a Hoel Committee meeting on May 26, 1987, attended by representatives of Philip Morris, Lorillard, Brown & Williamson, and R.J. Reynolds and attorneys from Covington & Burling and Shook, Hardy & Bacon, it was decided that the new ETS research coordinating organization for the tobacco industry should be called the Center for Indoor Air Research in order to dissociate it from its tobacco funding.

366. After further planning discussions of the Hoel Committee, the Executive Committee of the Tobacco Institute convened in New York on December 10, 1987 for the presentation by Tom Ogburn and Charles Green from R.J. Reynolds and Thomas Osdene from Philip Morris of a proposal for the formal organization of "a research organization to deal with issues relating to indoor air quality." The meeting was attended by, among others, Tobacco Institute Executive Committee Chairman, Philip Morris President and Chief Executive Officer Frank Resnick; Philip Morris Senior Vice President and General Counsel Thomas Ahrensfeld; Lorillard's Chairman, J. Robert Ave, Lorillard's Executive Vice President, Alexander Spears, and Lorillard's General Counsel, Arthur Stevens; B&W Vice President and General Counsel, Ernest Pepples; Liggett Vice President and General Counsel Josiah Murray III; recently retired R.J. Reynolds President Gerald H. Long; and Guy V. Smith IV of Philip Morris. The proposal presented called for the creation of CIAR, an organization to be controlled by Defendants and intended to function in a virtually identical manner to TIRC and CTR. At the end of the meeting, "it was agreed that Dr. Osdene and his group would proceed with the hiring of an Executive Director and the preparatory corporate and other steps for the establishment of the CIAR."

367. Pursuant to the agreement reached in December 1987, CIAR was officially created in 1988 to take over the responsibilities of the Hoel Committee – that is, to act as a coordinating organization for Defendants' efforts to fraudulently mislead the American public about the health effects of ETS exposure. CIAR was created by charter members Philip Morris, Lorillard, and R.J. Reynolds which controlled the activities of the organization. Brown & Williamson joined CIAR as a voting board member in 1995. While Liggett was never officially

a member of CIAR, it attended meetings of the organization and participated in ETS seminars and meetings organized by Covington & Burling and was fully cognizant of, and in fact assented to, the activities of the organization.

368. CIAR's stated mission was to be a focal point organization to sponsor and foster quality, objective research in indoor air issues with emphasis on ETS and to effectively communicate pertinent research findings to the broad scientific community. While Philip Morris, Lorillard, and R.J. Reynolds represented that CIAR was independent, its by-laws revealed otherwise. The by-laws required that charter members be tobacco companies; dictated that only charter members have the power to choose CIAR's officers; and, significantly, gave charter members the exclusive power to decide what research the organization would fund. Max Eisenberg served as CIAR's Executive Director and John Rupp of Covington & Burling as its General Counsel.

369. CIAR's by-laws were not the only source that belied the stated purpose of the organization. On April 25, 1988, Thomas Osdene, at that time the Director of Science at Philip Morris, explained to the Tobacco Institute's President that the purpose of CIAR was to provide Defendants with ammunition in legal and legislative fora where ETS exposure was at issue. CIAR was intended to allow Defendants to perpetuate a "scientific controversy" surrounding the health effects of ETS exposure. As Rupp explained in March 1993: "In sum, while one might wish it otherwise, the value of CIAR depends on the industry's playing an active role (1) in identifying research projects likely to be of value and (2) working to make sure that the findings of funded research are brought to the attention of decision makers in an appropriate and timely

manner." According to a former CIAR board member, "ETS was a litigation issue and a PR issue."

370. Many of the same officers of Defendants who were part of the Hoel Committee participated in CIAR Board discussions. Rupp also participated in Board discussions, including discussions that focused on whether CIAR should fund particular research. CIAR had two methods of funding research on ETS. The first was to have research proposals submitted to and reviewed by a CIAR Science Advisory Board, with its selections subsequently voted on by the CIAR board members. The second method was for the CIAR board to propose and fund projects directly, without any prior review by its SAB; these were referred to as CIAR's "Applied" projects, and were the equivalent of Special Projects at CTR. Applied projects included studies that were specifically rejected by the SAB.

371. The lengths that Defendants went to in order to insure that CIAR served their litigation, legislative, and public relations needs were extraordinary. With the heavy involvement of lawyers in the scientific research on ETS exposure and health, scientists were often asked to provide the results of a proposed study first, and thus they employed "pilot" studies to give the lawyers advanced information. If the preliminary study produced results unfavorable to the litigation positions of Defendants, the lawyers would not continue to fund them. For example, R.J. Reynolds scientist Charles Green admitted in a presentation to an INFOTAB meeting on October 15, 1986, that while he was a part of the Hoel Committee, lawyers used the practice of pilot projects so that they could anticipate what the results of a study would be before it was completed. In this way, they would be able to discontinue projects if it looked as if the results

obtained would be unfavorable.

372. Defendants' ETS exposure concerns were also addressed on an international level, springing from a meeting that took place in the United States in the spring of 1976. At the BAT Groups Chairman's Conference in Hot Springs, Virginia, BATCo recognized that the health consequences of ETS exposure would lead to the "social unacceptability of smoking." Of this, the company observed: "The subject is inseparably linked with passive smoking and presents a major danger and challenge to the industry. The danger exists in the clearly evident snowballing effect of the tactics aimed at making smoking a distasteful practice. The challenge lies in the industry's need to devise a counter-campaign. . . . Part of the industry's answer surely is to work towards making passive smoking the conflict issue." At the conference, "there was unanimous agreement that the social unacceptability issue constitutes a more serious threat to the industry's future than any other aspect of the attack on smoking."

373. Later that year, in October 1976, BATCo expressed its "belief that whilst smokers are prepared to sublimate their anxieties about the so-called health hazards, the need for industry margins to keep abreast of inflationary costs, with more smoke constituents coming under suspicion, and now with these social pressures, we foresee the possibility of a further diminution in the incidence of smoking unless Companies, either collectively or individually are prepared to take positive action."

374. In November 1976, the Tobacco Advisory Council ("TAC"), the United Kingdom's equivalent to the Tobacco Institute, discussed TAC's future role. TAC members agreed that they needed to focus efforts on the social unacceptability of smoking.

375. Thereafter, Tony Garrett of Imperial Tobacco called Hugh Cullman at Philip Morris to explore with Philip Morris whether several of the world's largest manufacturers, including BATCo and R.J. Reynolds, "might be prepared to meet discreetly to develop a defensive smoking and health strategy for major markets such as the UK, Germany, Canada, US and possibly others."

376. Garrett reported that BATCo, R.J. Reynolds, Reemtsma, Rothmans, and Imperial were prepared to consider such a unified strategy and suggested that a meeting take place in April or May 1977, with three representatives from each company, including its CEO. Garrett emphasized that the meeting should be as discreet as possible and avoid any publicity.

377. The group met in England under tight security and even came up with a false press release to provide explanatory cover in the event the fact of the meeting became known. This was the beginning of what would be known as Operation Berkshire.

378. In furtherance of the participants' desire to form internationally consistent positions on smoking and health issues, including the health effects of ETS exposure, the group agreed to form the International Committee on Smoking Issues ("ICOSI"). Pursuant to the agreement, certain companies would work to develop positions on specified issues, including R.J. Reynolds (spearheading the Social Acceptability Working Party) and BATCo (the Behavior Working Party).

379. An internal Philip Morris memorandum dated December 12, 1978, from J.M. Hartogh to A.E. Bellot expressed Philip Morris's view that the effectiveness of ICOSI would require coordination and input from the Tobacco Institute and Shook, Hardy & Bacon.

380. Later, Lovell, White & Durrant (later "Lovells"), counsel for BATCo, admitted that Defendants' approach to ETS exposure issues mirrored the approach to direct smoking that the Enterprise developed in the 1950s. Expressing its concern that statements by TAC on ETS might be inconsistent with those of the Tobacco Institute and other manufacturers, Lovells observed that the industry found itself in "the same position in relation to ETS that it was thirty-to-forty years ago in relation to active smoking." Lovells urged: "Statements made by TAC should, therefore, be consistent with the positions adopted by the individual companies." Lovells further observed: "On scientific matters relating to ETS, a common position has been agreed to by all the companies."

381. That coordination and active participation occurred, most notably with ICOSI's successor organization, INFOTAB, which replaced ICOSI in November 1981. INFOTAB's Board of Directors included, at various times, Cullman and Holtzman from Philip Morris and Horrigan and Pullen from R.J. Reynolds. Donald Hoel from Shook, Hardy & Bacon attended the organization's meetings. INFOTAB would later become the Tobacco Documentation Centre ("TDC") in 1992, but the name change did not lead to any change in its function.

382. Through the Tobacco Institute, other Defendants (beyond Philip Morris, R.J. Reynolds and BATCo) were involved with INFOTAB's activities. A September 18, 1986 letter from Shook, Hardy & Bacon to Alexander Spears at Lorillard attached a listing of ETS projects that includes preparation of a paper on ETS health claims and constituents for INFOTAB by the law firm for use by lead tobacco companies. The letter to Spears also advised of an INFOTAB workshop where Tom Osdene of Philip Morris, Charles Green of R.J. Reynolds, and Donald

Hoel of Shook, Hardy & Bacon would serve as panelists for an ETS presentation.

383. INFOTAB acted much like the Tobacco Institute, principally in its development and coordination of statements, prepared with reckless disregard for the truth or falsity of matters asserted, on the health effects of smoking for public dissemination by its members, which included Philip Morris, R.J. Reynolds, and BATCo, with the goal of creating the idea that a scientific controversy existed over the health effects of smoking.

384. One example of such materials was a document known at the ETS Kitset. It identified two key strategy objectives for its members:

Objective 1 To demonstrate the inconclusive nature of claims that ETS has harmful effects, by bringing to light the scientific controversy over such claims.

Objective 2 To position ETS as just one (and a very minor) factor in a complex atmospheric mix which also includes petrol/diesel fumes, dust, bacteria (particularly in air conditioned environments), pollen, and in industrial situations an enormous variety of chemical fumes and substances.

385. The Kitset also contained "Campaign Resource Materials" that instructed members on the best ways to run publicity campaigns, and publicity leaflets addressing six "sub-issues" created by INFOTAB for use by recipients, with the aim that the "scientific" presentations therein reach the "target audience." To that end, INFOTAB provided a Public Affairs Guide ("for use with politicians, civil servants, journalists and other opinion-leaders") and a "general leaflet" that addressed "the two major strategic themes of 'demonstrating scientific controversy' and 'ambient air quality.'" The introduction to the Kitset further indicated:

Finally, the key arguments on the claimed health effects of ETS and its contribution to indoor air quality have been picked out in two documents

defined as Useful Arguments. These give more detail on what might be said in relation to the main strategic theme, and are designed to facilitate [members] construction of their own campaign materials.

386. The introduction to the Kitset made clear the INFOTAB Board's desire to keep its control and influence over the campaign secret:

This kitset contains two distinct types of document. The leaflets have been written for publication outside the industry and have been scrutinized by industry experts. They are clearly distinguished as printed, two-colour publications, and do not carry either the Infotab name or the ETS campaign logo.

IN CONTRAST, THE INTERNAL PAPERS - OF WHICH THIS INTRODUCTION IS ONE - ARE FOR USE INSIDE THE INDUSTRY ONLY AND SHOULD BE TREATED AS CONFIDENTIAL. FOR THIS REASON, THE INTERNAL PAPERS HAVE BEEN PRODUCED IN A FORM WHICH IS INAPPROPRIATE FOR PUBLIC USE AND ARE CLEARLY MARKED AS CONFIDENTIAL INFOTAB DOCUMENTS.

387. The combined activities of CTR, the ETS Advisory Group and its other incarnations, CIAR, the Tobacco Institute, ICOSI, INFOTAB, and TDC allowed Defendants to undertake and coordinate a massive fraudulent campaign on ETS exposure issues. This campaign led to numerous public statements and publications, each of which was issued with knowledge of its falsity or with reckless disregard for the truth of its substance. It also led to a worldwide effort to manufacture "scientific" evidence and attack legitimate scientific study.

388. For instance, on March 14, 1973, Anne Duffin, Vice President of the Tobacco Institute, transmitted an "updated version of our 1971 pregnancy 'backgrounder' for use in government contact work" to David Hardy of Shook, Hardy & Bacon. Duffin observed that "it becomes increasingly clear that the questions of smoking and pregnancy and 'passive' smoking are and will be for some time the biggest problem we face in all aspects of our work." The

pregnancy backgrounder stressed the position that controversy surrounded the issue of the effects of neonatal exposure by maternal smoking.

389. In 1976, the Tobacco Institute published: "Smoker or Non-Smoker? A few words for you from the Tobacco Institute." In it, the Tobacco Institute asserted: "Growing scientific research provides strong evidence that tobacco smoke does not affect nonsmokers' health." At that point in time, there was no such growing scientific research. To the contrary, the steadily growing body of smoking and health research indicated otherwise.

390. In September 1977, the Tobacco Institute created and caused to be published an advertisement focused on ETS exposure: "Some people are saying America needs a lot of new laws restricting smoking. Before you decide, you should know this: Other people's smoke has never been shown to cause disease in nonsmokers." The statement, like Defendants' myriad near-identical statements about active smoking, was false. At the time it was issued, the ever-developing body of scientific study supporting the conclusion that ETS exposure caused lung cancer and other diseases was substantial.

391. The advertisement offered a free booklet "TI SPECIAL REPORT-Smoking and the public," which was described as "a collection of detailed medical evidence from around the world that should fully convince you that it's never been shown that smoke causes disease in the nonsmoker." Much of the cited material consisted of conferences and studies paid for by Defendants, but the booklet did not disclose Defendants' connection to the meetings and research offered as "evidence" of the absence of harm from ETS exposure. A 1977 Munich conference was one such meeting, as was a 1974 conference, which featured Domingo M. Aviado and

Walter M. Brooker as participants, both of whom received Special Account No. 4 funds from Jacob & Medinger.

392. R.J. Reynolds established a project in the late 1970s entitled "Studies on the Social Aspects of Smoking" to reverse the steadily unfavorable trend toward decreasing social acceptability of smoking. The company tried to mobilize Defendants "aggressively" under R.J. Reynolds's leadership and structured the Tobacco Institute to engage in a "pre-emptive strike" on ETS. R.J. Reynolds conceded that "no counter-strategy can succeed unless we can refute the [ETS] causation theory."

393. In 1979, the Tobacco Institute published a pamphlet entitled "Two-Way Street." It argued: "First of all it is important to understand that there is no convincing evidence that tobacco smoke causes disease in nonsmokers." The statement ignored the strong evidence linking ETS exposure and disease – evidence that scientists at the Cigarette Company Defendants privately acknowledged was legitimate.

394. In the early 1980s, for example, Philip Morris scientists reviewed the evidence showing that nonsmokers exposed to ETS suffer significant damage to their health and found such conclusions to be credible. A Philip Morris department head wrote: "I have reviewed the above paper [by James R. White, Ph.D. and Herman Froeb, M.D., concluding that nonsmokers exposed to secondhand smoke suffer significant damage to airway function] and find it to be an excellent piece of work which could be very damaging to our business." In response, Philip Morris did not acknowledge the danger its cigarette products posed to nonsmokers, nor did it seek to conduct research similar to that undertaken by White and Froeb. Instead, it began to

baldly and falsely deny the validity of the research results. Philip Morris also considered contacting Dr. Gary Huber to see whether he, as a "recognized medical authority," might be willing to publicly refute the paper's findings for them in a medical or scientific journal.

395. Philip Morris had recognized the dangers in ETS exposure long before the 1980s. Wakeham's 1961 paper cataloguing known gas and particulate chemicals in cigarette smoke, including those that Philip Morris viewed as carcinogens, identified 84% of the 400 then-identified chemicals in sidestream smoke, or ETS.

396. Philip Morris confirmed Wakeham's findings in a 1984 study conducted overseas at its research facility in Neuchatel, Switzerland. In a report, "Quantitative Evaluation of Cigarette Sidestream Smoke Components Under Controlled Experimental Conditions," Philip Morris summarized its detailed testing of the quantities of harmful chemicals generated by sidestream smoke in ambient air. Philip Morris did not only find that harmful constituents, including carcinogens, were generated, but it found their concentrations in the air to be directly related to the number of cigarettes smoked and, further, found that concentrations did not decay over a time period of an hour after cigarettes were extinguished.

397. B&W also specifically recognized the harms of ETS exposure. On November 16, 1982, the company conceded internally that "the overwhelming weight of scientific literature point[s] toward toxicity" in ETS.

398. But, as a member of the Tobacco Institute, B&W continuously attacked legitimate research. In 1981, the Tobacco Institute published an advertisement attacking an important Japanese study conducted by Hirayama that linked ETS exposure to lung cancer. The

advertisement proclaimed: "Here's what's now being said about tobacco smoke in the air. . . . Scientist disputes findings of cancer risk to nonsmokers." In it, the Tobacco Institute declared that several eminent biostatisticians found an apparent statistical error in Hirayama's calculations which raised serious questions about the study. The Tobacco Institute knew, however, that the Hirayama data was correct – the statistical errors cited did not exist.

399. The Tobacco Institute also sought to mislead the public about the health effects of ETS exposure by publicizing the conclusions of Defendant-sponsored conferences. In 1984, the Tobacco Institute published a document entitled "Environmental Tobacco Smoke Workshops 1983-1984." It focused on two industry-sponsored "workshops," noting that each one concluded that there were no demonstrated health effects of ETS exposure.

400. In November 1984, Philip Morris executive William O'Connor, writing on behalf of the Tobacco Institute, published an article in Business and Health magazine titled "In defense of smokers." He falsely declared: "Advocates who claim environmental tobacco smoke is a proven health hazard seem to ignore the scientific literature in this area."

401. In 1986, the Tobacco Institute published an ETS booklet entitled "Tobacco Smoke & The Nonsmoker: Scientific Integrity at the Crossroads." It claimed that scientific integrity and academic freedom faced a serious threat from political pressures being applied by government health officials such as the Surgeon General and otherwise principled scientists and that ETS science was at the "mercy of politics." The attack on the Surgeon General followed Defendants' pattern and practice of organizing public relations campaigns designed to undermine the public health efforts of the Surgeon General that began with the 1964 Report. As with previous and

future Reports, the public relations campaign directed at the ETS work done by the authors of the 1986 Report was designed to further the goals of the Enterprise by fraudulently denying the health effects of smoking.

402. A year later, continuing its fraudulent assault on the conclusions of the Surgeon General and scientific researchers, the Tobacco Institute published a booklet titled "Smoking Restrictions: The Hidden Threat to Public Health." It declared that the evidence did not support conclusions that ETS is a harm to nonsmokers and that more research is needed. Further, it questioned "What's government's role in regulating behavior in the workplace?" The booklet quoted statements made by researchers at a March 1983 conference in Geneva, Switzerland, and at an April 1984 symposium in Vienna, Austria. Both of these conferences were conducted by the tobacco industry but no such attribution was made in this booklet.

403. Defendants' concern and motivation was clear. The ETS issue was shaping up to be one of the most intractable problems for the tobacco industry. In 1987, Philip Morris recognized, "It is apparent that the effects of ETS on others is now the most powerful antismoking weapon being employed against the industry."

404. Perhaps because of this recognition, Philip Morris acted aggressively. At a May 11, 1987 meeting on ETS strategy spearheaded by Philip Morris, Rupp was tapped to "buffer entities" to hide Defendants' connection to scientific consultants from the public. The meeting minutes, labeled "Strictly Confidential," identified the following objectives of the ETS strategy: (1) "[r]esist smoking restrictions;" and (2) "[r]estore smoker confidence." The latter identified objective is evidence of Philip Morris's specific intention that smokers be influenced by its public

relations campaign. Philip Morris identified pre-requisites to achieving its goals: (1) "[r]everse scientific and popular opinion;" (2) [r]estore social acceptability of smoking;" and (3) "[p]reserve product liability defences." In order to meet its identified prerequisites, Philip Morris required:

Industry Coordination

It is preferable to build up a coordinated, international industry effort. Ideally this would be under the auspices of INFOTAB. In many markets it will be advisable or even necessary to work through the [National Manufacturing Association] or an industry club. Nevertheless it was understood that PM must forge on and lead/act unilaterally whilst the industry coordination is being established in individual markets. This coordination should ultimately lead to integration with respect to the buffer entity.

At the same meeting, participants discussed the importance that consultant ACVA Atlantic (later renamed Heathy Buildings International) "be perceived to be at arm's length from the industry, including in media briefings. Its role at most should seem as yet another third party expert amongst others."

405. A month later, Philip Morris hosted an internal conference codenamed "Project Down Under" to look at the ETS issue confronting Defendants. Rupp identified advertising as a key to influencing public opinion about the health effects of ETS exposure and the need for smoking restrictions:

Three types of ads.

1. "Designer" campaign. Artistic photo & copy. "I think we can live together." "Faulty data." "I'm a responsible guy," etc. Geared to smokers & non-smokers.

(noted here that copy has not been legally approved.)

2. "Rights" campaign. Subject standing outside restaurant, exclusion

compared to that of minorities, prohibition.

3. "Science of ETS" campaign.

As we think through this, remember there are different ways of getting information across to different people. E.g., some people would like science jargon.

Rupp expressed a sense of urgency, noting, "In U.S., ETS issue will have devastating effect of sales." He summarized: "Problem – threatens number of smokers & number of cigarettes they smoke," and then indicated that the question confronting Defendants was "[h]ow to alter public perception that ETS is damaging." Part of that would, according to Rupp, involve an attempt to "[c]hange underlying fact from 'not proven' to ETS is not harmful to non-smoker." Rupp admitted, however, that doing so would be a problem because of the "[l]ack of objective science" to support Defendants' public relations campaign. But the lack of objective science would not stand in Defendants' way. Rupp asked: "Is \$100 million campaign worth an x increase in sales?" The answer: "Yes."

406. Among the advertisements used to advance this strategy, an August 1987 Philip Morris advertisement stated: "I know there's no proof my smoke can hurt you. But if it bothers you, please tell me. I think we can live with each other."

407. On January 4, 1988, the "Downunder" strategies were introduced and accepted by the Tobacco Institute's Executive Committee, and on February 18, 1988, R.J. Reynolds, Lorillard, Liggett, and American were invited by the Tobacco Institute to assist with the development of "Project Downunder."

408. In June 1988, an "Industry Interface Meeting on ETS" was held in London,

chaired by Hoel and attended by Rupp, attorney Mary Ward from R.J. Reynolds, and in-house scientists representing tobacco companies from several nations. The stated objective of the meeting was "to bring together industry scientists to discuss scientific research and strategies on ETS and how these related globally." During the meeting, Dr. Adlkofer, Research Director of Verband der Cigarettenindustrie (a trade organization for the German tobacco industry), questioned the industry's continuing creation of its own "marketable science." Dr. Adlkofer expressed the view that what Defendants sought was "good public relations material, not good science," but "refused to endorse a situation in which scientific research is guided by public relations needs." Adlkofer questioned the wisdom of the industry's present course on the ETS issue and urged the industry instead to concentrate on identifying a threshold level for risk of ETS exposure. This controversial suggestion caused Dr. Sharon Boyse of BATCo to observe that the "no-threshold argument would automatically indict active smoking." Thomas Osdene of Philip Morris helpfully suggested that "a threshold level could be set, but that the threshold not be quantified." A Philip Morris consultant argued that setting such a limit would be "dangerous" because it would provide "a priori proof of causation for anti-smoking advocates," and "would indict active smoking." Rupp asserted that the fraud must continue: "[T]he industry should continue to emphasize the lack of substantive proof of causation."

409. Starting in the late 1980s, Defendants, led by Philip Morris and industry attorneys, intensified their efforts to identify and fund industry friendly scientists around the world to attack the science linking ETS exposure to disease. This ambitious undertaking was referred to as, among other things, the ETS Consultant Program or the "White Coat Project." The project

description revealed its scale and focus:

In every major international area (USA, Europe, Australia, Far East, South America, Central America & Spain) they [Philip Morris] are proposing, in key countries, to set up a team of scientists organized by one national co-ordinating scientist and American lawyers, to review scientific literature or carry out work on ETS to keep the controversy alive. They are spending vast sums of money to do so. . . . Because of the heavy financial burden, Philip Morris are inviting other companies to join them in these activities.

In the late 1980s and the 1990s, Defendants shared the costs of the law firm efforts to develop scientific witnesses and evidence through the Tobacco Institute. The project was to "be independent from, but work cooperatively with, bodies such as INFOTAB and the US CIAR."

In the 1990s, a "priority for the project [was] to address product liability concerns in all international markets including the U.S."

410. The public relations campaign also intensified. The Tobacco Institute used Gray Robertson, head of Healthy Buildings International ("HBI") (who was one of CIAR's "Applied Projects" funding recipients) as a spokesperson and expert witness. While sponsoring his statements and using them to further the goals of the Enterprise through their fraudulent public relations efforts, internally Defendants admitted that Gray's "scientific" methodology could not withstand scrutiny and that his data was questionable.

411. HBI was an indoor air quality company with the stated operative purpose of inspecting the air in buildings, including office buildings. The Tobacco Institute provided funding for HBI, and in return, HBI provided testimony and made media appearances. The Tobacco Institute publicized the HBI research, research projects, research results, and research publications on indoor air quality matters that it funded. The Tobacco Institute's Public Affairs

Division participated in media campaigns and media tours with HBI regarding air quality issues: "HBI would go somewhere, say Louisville, KY, and talk to the media about what their firm did; what they found in their business practices with respect to indoor air quality; how they saw environmental tobacco smoke, if that subject came up; how often smoking was a problem in buildings; and how building owners and managers mitigated that program."

412. Defendants took their public relations campaign around the world. In 1989, "PMUSA, RJR and B&W agree[d] to fund a network of ETS scientists in ASIA," explaining: "Candidates have been identified in Korea, Taiwan, Hong Kong, Philippines and Thailand. JTI's [Japan Tobacco International's] support is being sought to expand the program to Japan. At the end of a training session in late June we will have a core of 10 scientists who are fully trained on the issues, ready and prepared to make a contribution by way of writing articles, briefing government officials, and so forth. Their first task will be a press conference in Hong Kong in late June." In a May 25, 1989 letter from Rupp to John Dollisson of Philip Morris Asia, Rupp explained how various tobacco companies such as BATCo, B&W, and R.J. Reynolds planned to split fees incurred with these projects.

413. Back in the United States, in 1989, R.J. Reynolds created a position paper which disputed not only the Surgeon General's Reports that cigarettes, including ETS exposure, cause cancer, but also disputed all evidence that ETS constitutes any health hazard to nonsmokers. The position paper attacked the science behind linking both smoking and ETS to disease. There was, of course, no basis for the attacks on legitimate scientific research.

414. In the same year, Defendants sought to generate publicity to advance their ETS

strategy by choreographing a symposium at McGill University in Montreal, Quebec, sponsored by the Tobacco Institute, Philip Morris, and R.J. Reynolds. Before the symposium began, Philip Morris planned its format to ensure that conclusions reached by participants would favor Defendants' position on ETS exposure. Defendants planned to use the McGill Symposium to, in Rupp's words, "neutralize" a risk assessment on ETS being conducted by the United States Environmental Protection Agency ("EPA").

415. The McGill Symposium included as participants eighty of the industry's consulting scientists from more than twenty countries. The participants, including Peter Lee, Gio Gori, and Gray Robertson, were carefully selected for the invitation only event, so that the industry consultants could present their views unopposed. Covington & Burling coordinated the accompanying publicity campaign, including full exploration as to the best avenues for distributing the published proceedings within Asia and having the consultant participants distribute copies of the proceedings to public officials in their own countries. The editors of the 1989 McGill Symposium publication were paid industry consultants.

416. After the consultant participants had engaged in planned media interviews and other public relations exercises upon the conclusion of the symposium, the Tobacco Institute coordinated further public relations efforts, including having the consultants prepare opinion letters for publications.

417. In the summer of 1990, consultants were paid to prepare editorials comparing the results of the McGill Symposium to the public draft of the EPA ETS Risk Assessment; many of the editorials submitted were published.

418. In 1990, the Tobacco Institute revised and republished "In the Public Interest . . . Three Decades of Initiatives by a Responsible Cigarette Industry." In this publication (which had originally been created and published in 1986), the Tobacco Institute touted its promises to do "independent" research on ETS exposure: "In 1988 pursuing its effort to advance scientific knowledge, tobacco industry support led to establishment of the Center for Indoor Air Research (CIAR) to award funds to independent investigators in the field of air quality in enclosed spaces."

419. Scientists at the Defendant companies acknowledged the falsity of such pronouncements. At Philip Morris, for example, researchers conceded: "We seem to focus on re-confirming what we know. In terms of 'leading edge' research, nothing is being considered." The company's scientists further admitted that they were not making either a qualitative or quantitative contribution to understanding the link between ETS exposure and disease.

420. In April 1991, Alexander Spears of Lorillard, Charles Green of R.J. Reynolds, and Bob Pages of Philip Morris (all board members at CIAR), discussed whether CIAR should fund a proposal by HBI to gather data on ETS and indoor air quality in 585 office buildings. Funding was provided to HBI for an Applied project. After the study "The Measurement of Environmental Tobacco Smoke in 585 Office Environments" was published by Simon Turner of HBI, the results and data were subject to a congressional examination. The Subcommittee on Health and the Environment obtained HBI's raw data and compared it to data submitted in an interim report to CIAR. The Subcommittee's analysis showed that measures of respirable suspended particulates, which were used to estimate ETS levels, were substantially altered more

than 25% of the time. Several other discrepancies were identified that would have tended to decrease the levels of ETS measured in rooms used for smoking. HBI employees confirmed that their data collection forms were routinely changed to minimize measurements of ETS. The Subcommittee requested an independent analysis of HBI's data, which concluded that "the data [are] so marred by unsubstantiated data entries, discrepancies, and misclassifications that it raises serious questions of scientific fraud."

421. Continuing the Enterprise's effort to make sure that public statements on ETS exposure were uniform, Covington & Burling prepared a position paper, the ETS White Paper, for the International ETS Management Committee ("IEMC"), another of Defendants' ETS committees including members Philip Morris, R.J. Reynolds, and BATCo. On March 2, 1992, IEMC members adopted the White Paper.

422. At the same time IEMC was insuring member coordination, the ETS strategy was being advanced by Defendants and their agents, who secretly funded scientific consultants on ETS through an organization called the Association of Research on Indoor Air ("ARIA") with payments from Covington & Burling routed to a Swiss bank account number. ARIA had been set up by Philip Morris in 1988, at which time Covington & Burling was asked to fund it in order to hide Philip Morris's connection to the project.

423. In June 1992, Covington & Burling helped Defendants attempt to shift public discussion of the health effects of ETS exposure from an examination of the deadly diseases caused by ETS to the issue of indoor air ventilation by writing a briefing paper for the Confederation of European Community Cigarette Manufactures ("CECCM") in conjunction with

the IEMC titled "Environmental Tobacco Smoke; Indoor Air Quality and the Need for Adequate Ventilation."

424. Starting in the early 1990s, Philip Morris mounted a multi-million dollar campaign to attempt to undermine a study on the dangers of ETS that had been undertaken by the International Agency for Research on Cancer ("IARC"), an affiliate of the World Health Organization. The campaign targeted researchers, the media and government decision-makers. Its aims were to: "Delay the progress and/or release of the study. Affect the wording of its conclusions and official statement of results. Neutralize possible negative results of the study, particularly as a regulatory tool. Counteract the potential impact of the study on governmental policy, public opinion, and actions by private employers and proprietors."

425. Philip Morris also worked to "keep the controversy alive" when attacking the EPA's 1993 risk assessment. That year, Philip Morris unveiled its plan to discredit the EPA generally and the Risk Assessment in particular: first, Philip Morris planned to and did attack the EPA with litigation; second, Philip Morris planned to and did go to the media with charges of "EPA corruption," excesses and mistakes (even if unrelated to the substantive issue); third, Philip Morris sought to get risk assessments banned from regulatory activities by approaching the executive branch; and finally, in conjunction with Shook, Hardy & Bacon and the public relations firm Burson-Marsteller, Philip Morris planned an all out effort to prevent the Occupational Safety and Health Administration ("OSHA") from regulating smoking in the workplace. Notably, none of these efforts were backed by legitimate scientific evidence; the public positions of Philip Morris and other Defendants were taken with knowledge of their falsity

or reckless disregard for the accuracy of their content.

426. In 1993, for instance, the Tobacco Institute published an advertisement attacking the EPA's 1993 ETS Risk Assessment: "Announcing a revolutionary new solution to the secondary smoke controversy. Common courtesy. The endless debate in Washington over how to 'classify' secondary smoke seems to us just the tiniest bit pointless. The science doesn't support a classification, but the EPA does."

427. The Tobacco Institute also organized and funded the "Truth Squad," a group of scientific witnesses did media appearances (as well as providing legislative testimony) on ETS exposure issues throughout the United States. The Truth Squad's activities were determined by the ETS strategy developed by Defendants to further the goals of the Enterprise and focused on the work of the EPA. During the media tours, members of the Truth Squad would talk about their purported areas of ETS expertise. Some of the interviews, or excerpts, were televised and some broadcast on the radio. Members of the Truth Squad also wrote editorials and opinions pieces on indoor air quality issues.

428. The Tobacco Institute paid numerous scientific witnesses for written submissions attacking legitimate scientific study identifying ETS as a cause of disease, including lung cancer. For example, on January 6, 1993, the Tobacco Institute paid scientific consultant Gio Gori \$3,555 to write a letter to the editor of the Journal of the National Cancer Institute ("JNCI") captioned: "Environmental Tobacco Smoke: The Price of Scientific Uncertainty." The Tobacco Institute paid Gori another \$4,137.50 five days later to write an Op-Ed page submission on the Risk Assessment for the Wall Street Journal (the Journal declined to publish Gori's work).

On April 10, 1993, the Tobacco Institute Gori \$4,000 to write a letter to Lancet, disputing an editorial that had found the Risk Assessment provided a firm regulatory basis for increased social action to minimize the public's exposure to ETS. The Tobacco Institute paid BATCo consultant Peter Lee \$4,000 on January 29, 1993, to write a response to letters to the editor of Environment International, disputing the conclusion that ETS exposure caused lung cancer and mortality. In June 1993, the Tobacco Institute paid Lee \$5,000 to write a letter to the editor of JNCI disputing results of an ETS study by Stockwell that post-dated the Risk Assessment and found a link between ETS exposure and lung cancer in nonsmoking women. The letter was published along with two other letters from Tobacco Institute consultants, Paul Switzer and Max Layard. All were critical of the Stockwell study. None disclosed the source of funding for the words submitted.

429. The Tobacco Institute also paid Gori to attack the Risk Assessment at meetings. In March 1994, at a Society of Toxicology Meeting in Dallas, Gori criticized EPA administrators and scientists as being predisposed.

430. On July 6, 1994, the Majority Staff, Health and the Environment Subcommittee of the Committee on Energy and Commerce in the United States of Representatives sent each member of the CIAR's Science Advisory Board a survey on the health effects of ETS. Six of the seven members agreed that ETS "presents a serious and substantial public health threat to children" and five of the seven members agreed that ETS is "a human lung carcinogen." The committee found that these answers contradicted Defendants' public position that ETS is not a health threat to nonsmokers.

431. Defendants also advanced the goals of the Enterprise by attempting to change the way that scientific evidence of the health effects of ETS exposure could be analyzed. In July 1997, CIAR organized and sponsored a workshop in China called "International Workshop on Risk Assessment and Good Epidemiological Practices" with the goal of imposing a tobacco friendly method and standard of evaluating epidemiological data for scientists. With this standard, Defendants hoped, from a technical standpoint as opposed to a scientific one, to make it next to impossible to link ETS with disease.

432. In April 1998, a Philip Morris assessment of the Good Epidemiological Practices project cited Covington & Burling's attempt to encourage a "grass roots" movement among epidemiologists to reform their science to ignore any study with a relative risk of less than 2.0 (the standard sought by Defendants). But "no epidemiological organization would agree to this [reform]."

433. In 1998, Philip Morris funded an ETS study entitled "Parental Smoking and Sudden Infant Death Syndrome: A Review of the Evidence," written by Alison J. Thornton and Peter N. Lee. Their study concluded that the existence of various study weaknesses and the likelihood of residual confounding meant that one could not infer with confidence that parental smoking increased the risk of SIDS. The paper was rejected for publication in Public Health Reviews, "considering it not sufficiently unbiased." Bias was not a concern for Philip Morris, and the paper was published in Indoor Built Environment, a journal fronting another one of the organizations funded by Defendants.

434. Indoor Built Environment was used frequently to wage Defendants' fraudulent

campaign regarding the health risks of ETS exposure. Another paper by Lee and Thornton titled "A Critical Commentary on Views Expressed by IARC in Relation to Environmental Tobacco Smoke and Lung Cancer" was published in 1998. The study attacked IARC's work on ETS.

435. In late 1998, Covington & Burling assisted CIAR (which was required to dissolve under the provisions of the MSA) to complete its funding of ETS-related projects in 1998 and figure out how a new organization would take over CIAR's duties and continue the funding in 1999.

436. Liggett recently admitted that ETS exposure causes disease. The chief chemist at Vector Tobacco, a Liggett corporate affiliate, testified in this case that ETS causes lung cancer in nonsmokers. Bennett LeBow admitted that "secondhand smoke is dangerous."

437. To this day, Philip Morris, BATCo, B&W, Lorillard, and R.J. Reynolds deny that ETS causes disease in nonsmokers. These assertions continue to be made in order to advance the goals of the Enterprise, despite the contrary conclusions of countless medical and scientific organizations, including the United States Surgeon General, the World Health Organization, and the American Medical Association.

(5) Continuing the Pattern and Practice That Began in the 1950's, Philip Morris Suppressed Research and Failed to Warn Consumers about the Excess Fire Danger Posed by Its Banded Paper Cigarettes, Which Were First Marketed in 2000

438. In September 2000, as a result of a research endeavor known as the Banded Paper Program, which was initiated in anticipation of new fire safety regulations in a number of states known as ignition propensity standards, Philip Morris began marketing a new brand of Merit cigarettes that included a special cigarette paper. Philip Morris sought to develop cigarette paper

that would have a lower ignition propensity in certain tests – that is, a product that would be less likely to start a fire if left unattended. The paper was first put on the market in 2000 in cigarettes called Merit PaperSelect. The cigarettes utilize a cigarette paper with bands on it that Philip Morris, on promotional materials (including informational "onserts" attached to individual packages of cigarettes for a period after its introduction), likened to "speed bumps" that slow the burning of the cigarette.

439. Soon after the national introduction of Merit with banded paper, Philip Morris began receiving complaints about the product that far exceeded the number of complaints that Philip Morris ordinarily receives when it changes a product's design or features. In particular, an unusual number of complaints concerned a phenomenon known as "coal drop off" ("CDO") – literally, when the lit coal of the cigarette drops off the cigarette rod. The coal is the "fire" of the cigarette and is not to be confused with cigarette ash that smokers periodically tap off their lit cigarettes.

440. Philip Morris has long been aware of the potential hazards posed by CDO. In fact, in the July 1997 manual explaining how to operate a drop impact machine Philip Morris had previously used to test for CDO, Philip Morris included a boxed warning for its researchers that stated, "Avoid contact with hot coals during testing." According to the testimony of Hector Alonso, Vice President of Product Development and Technology within Philip Morris's R&D Department (who has overseen the work of the Banded Paper Program and who had previously worked on CDO), the boxed warning was a valuable cautionary statement for researchers because a dislodged cigarette coal could potentially cause a burn. Yet when confronted with

evidence that consumers were experiencing unusually frequent CDO with Merit PaperSelect, Philip Morris chose not to inform purchasers of Merit PaperSelect of the precise problem – about which it provided a prominent, explicit warning to its own researchers – because "[i]t's understood that cigarettes are hot."

441. Complaints about CDO are exceedingly infrequent for non-banded paper product – about one complaint every two weeks. By contrast, for Merit PaperSelect, Philip Morris received complaints at a rate far higher – 211 CDO complaints in September 2000; 247 CDO complaints in October 2000; 173 in November; and ninety-one in December 2002. Among the complaints about Merit's banded paper product were reports that coals had burned holes in t-shirts and sweatshirts, furniture, and rugs, and had fallen into smokers' laps. Persons at Philip Morris responsible for the product were informed of the complaints, including Urs Nyffeler, the Senior Vice President for Research, Development & Engineering, and Dave Beran, Senior Vice President of Operations. Philip Morris was also aware that the CDO problem could potentially distract people while they are driving, and that someone could get hurt as a result of CDO from banded paper cigarettes.

442. Philip Morris assigned Michael Watkins, a Ph.D. physicist with a specialty in "nondestructive evaluation" who had been with Philip Morris for 15 years and who was already working in the Banded Paper Program, to investigate the cause of the increase in CDO reported by smokers of Merit banded paper cigarettes. Based on preliminary research involving thermography and magnetic resonance imaging techniques, Watkins reported to senior management of R&D in October 2000 that the bands on the cigarette paper – which were

responsible for the claimed reduction in ignition propensity – also appeared to played a role in causing CDO.

443. Watkins' research first focused on testing the methodology of measuring the problem. Both he and Alonso concluded that the Philip Morris's method of measuring CDO propensity – an old machine that imparted a large periodic impact vibration to a lit cigarette – was unreliable and inadequate for meaningfully detecting differences in CDO for the banded paper cigarette because the periodic impact event of the old machine did not necessarily occur when the cigarette is burning around the bands. Just as significantly, the drop machine also had little relation to the way in which consumers actually use and handle cigarettes, because it imparted forces to the cigarette of 100G forces, far in excess of the 3G-5G forces typical to consumer handling. Indeed, Watkins's supervisor, Tyrone Murray, admitted that even under the drop impact test, banded paper cigarettes had a 40% increase in CDO, but he did not recommend that this information – which he considered scientifically valid – be provided to consumers because the 40% increase occurred on the drop impact test, and "I don't know what kind of increase that would show in consumer use."

444. In early 2001, after Watkins was promoted to Senior Research Scientist, his supervisor, Tyrone Murray, communicated pressure from management to address and solve the problem because of Philip Morris's plans to launch other brands of its cigarettes using the banded paper.

445. In July 2001, based on his evaluation using several different research tools – thermal and magnetic resonance imaging, an "intrapuff" tool using infrared spectroscopy, and a

low frequency excitation device designed to vibrate cigarettes at a force more comparable to that imparted by smokers than the impact machine – Watkins and his research team reported that the bands appeared to play a role in causing CDO. Watkins reported that initial data indicated that cigarettes with banded paper were seven times more likely to suffer CDO when the cigarette was vibrated while the burning coal was entering the band than a nonbanded cigarette. Watkins later replicated his results with a slightly different excitation technique.

446. Murray, who had a personal stake in the banded paper design, was visibly unhappy with the test results. He complained to Watkins and pushed to have the CDO research done on a vibration machine patterned after the drop-impact test, irrelevant to addressing the problem with the smoking habits of public consumers but more likely to yield the results that Murray wanted – namely, a finding of no increased CDO with banded paper.

447. In October 2001, Watkins reviewed his research findings with three high-ranking scientists at Philip Morris (Hector Alonso, A. Clifton Lilly, and Urs Nyffeler), who complimented the quality of his research both as to the inadequacy of the old CDO testing device and as to his investigation into the cause of CDO. Subsequent to that review, he made a presentation reporting on his research to a forum of the Research and Development department. Based on his research, Watkins conservatively estimated that smokers are faced with burning coals dropping from cigarettes 30,000 more times per day than would occur with Merit cigarettes made with conventional cigarette paper.

448. Watkins then reported his findings on the danger posed by the banded paper in Merit cigarettes to the top of the company, Philip Morris's Chief Executive Officer. On

November 21, 2001, Watkins was flown from Richmond to Philip Morris's corporate offices on Park Avenue in New York City to make a presentation to Philip Morris Chief Executive Officer Mike Szymanczyk and the Philip Morris Senior Team. The Senior Team is comprised of the company Chief Executive Officer and those who reported directly to him. Watkins told Szymanczyk and the Senior Team that the reason they were doing the work was because CDO has a potential to cause harm to smokers. The information Watkins provided to Szymanczyk was similar to what he disclosed previously about the hazards of CDO from banded paper cigarettes at his October 2001 presentation to the R&D forum. He detailed the danger posed to consumers and its cause.

449. Watkins's findings were further confirmed in late 2001 when Watkins learned that another Philip Morris scientist, Melissa Jeltima, achieved nearly identical results in an extended product test that included the banded paper Merit. Jeltima performed product testing with human smokers. Her test subjects found that CDO occurred in Merit PaperSelect at an increased frequency equal to what Watkins found based on machine testing. Watkins reported Jeltima's consistent findings to Alonso and Lilly.

450. In December 2001, Jeltima reported that the results of a call-back study – in which Philip Morris contacted Merit banded paper smokers to learn more about consumers' reactions to the product, rather than relying only on complaints made to the company – showed Merit banded paper smokers were still experiencing CDO at elevated levels.

451. Despite the fact that the danger posed by the Merit PaperSelect was presented to Szymanczyk and the Senior Team, Philip Morris took no steps to warn consumers or pull the

product from the market. Instead, Philip Morris buried the problem by removing Watkins and another longtime Philip Morris scientist from the banded paper program. The two had thirty-seven years of experience between them. They were replaced by a scientist with no background in banded paper and four years' experience. While Philip Morris characterized the personnel change as a shift in resources to put Watkins on a higher priority project – the SCoR program – they were moved to a part of that program with no resources and no place to do work. Indeed, Watkins was sent to an empty office without so much as a telephone line.

452. Watkins did have the opportunity to again express his concerns about public safety amongst smokers of Philip Morris cigarettes. After being advised of his reassignment, at an off-site "project review" meeting with his former work group in January 2002, Watkins's supervisor, Ty Murray, indicated that his biggest concern regarding CDO was that people smoking the Merit with banded paper would switch to other brands and Philip Morris would lose market share. Watkins expressed the fear that the CDO problem with Merit banded paper would cause injury to consumers by starting fires or startling smokers who smoked Merit PaperSelect while driving. Shortly after expressing his concern for public safety, Watkins was fired.

[REDACTED]

453. Notwithstanding the elevated consumer complaints and research indicating the increased frequency of CDO associated with banded paper cigarettes, Philip Morris never warned consumers in any respect about the problem, never informed consumers specifically about CDO in the pamphlet attached to packs of Merit banded paper cigarettes, and fired the

scientist whose research pointed to the bands as the cause of the CDO problem.

454. Philip Morris has attempted to, but has not successfully, licensed its banded paper technology to other cigarette manufacturers. In its licensing efforts, Philip Morris has provided samples and information to other manufacturers, including R.J. Reynolds and Lorillard.

455. In sum, Watkins expressed concern that his widely supported, replicated, and compelling scientific research describing a design defect that, in a product intended to reduce ignition propensity, actually presents a disproportionate threat of burns and fires, has not caused Philip Morris to pull the product off the market or warn consumers.

456. The company's failure to disclose its knowledge of the risks posed by its product is evidence that Philip Morris's pattern and practice of concealing the harmful nature of cigarettes continues unaltered.

B. Cigarette Smoking is an Addictive Behavior

(1) There is a Consensus in the Scientific Community that Nicotine Is the Primary Component That Causes Addiction in Cigarettes Smokers

457. Cigarette smoking is an addictive behavior, and nicotine is the primary component of tobacco that creates and sustains addiction to cigarettes.

458. No later than 1988, there was an overwhelming consensus in the scientific and medical community that cigarette smoking is an addictive behavior and that nicotine is the component in cigarettes that causes and sustains the addiction.

459. Contrary to Defendants' view, expressed in numerous public statements, uncertainties concerning the addictiveness of tobacco products that existed in the 1960s and 1970s were not resolved by changing definitions of "addiction" to fit nicotine. Rather, the scientific and medical understanding of drug addiction has advanced considerably since the release of the 1964 Surgeon General's Report, which relied upon 1950s World Health Organization ("WHO") criteria that essentially construed drug addiction as a personality disorder. This concept and others were replaced by criteria and diagnostic techniques to measure addictive effects including physiological dependence, withdrawal, reinforcement, and psychoactive effects. In fact, the prominence given to personality disorder and the intoxicating effects of the drug as essential determinants of addiction were abandoned by the WHO itself in 1964, but too late to serve the authors of the Surgeon General's Report.

460. In the 1964 Report, the Surgeon General, using the criteria established for "addiction" and "habituation" by the WHO, concluded that neither smoking nor nicotine qualified as addictive.

461. In 1964, smoking was disqualified as addictive because it did not induce a state of intoxication, there was no evidence of "overpowering" need to ingest nicotine, and there was no evidence of significant physical dependence.

462. Since 1964, however, data has demonstrated, unequivocally, that nicotine in cigarettes is addictive by the same criteria that heroine and morphine were concluded to be addictive.

463. While Defendants well understood the primary role of nicotine in sustaining smoking addictiveness by the 1960s, and designed their products to deliver sufficient nicotine for this purpose, the understanding of the preeminence of nicotine developed more slowly outside the tobacco industry. For example, it was not until 1980 that the clinical psychiatrists determined that there was sufficient evidence of dependence and withdrawal from smoking to include these in the American Psychiatric Association's Diagnostic and Statistical Manual ("DSM-III"). Even then, the syndromes were called "tobacco dependence" and "tobacco withdrawal" rather than nicotine dependence and nicotine withdrawal, respectively, because of insufficient knowledge and understanding of the specific role of nicotine. It was clear to the developers of the DSM-III that nicotine played a role in making smoking addictive, but there were important unresolved questions as to the importance of nicotine, as opposed to the numerous other constituents of tobacco smoke and behavioral components of smoking. It was not until 1982 that the National Institute on Drug Abuse ("NIDA") concluded that scientific evidence demonstrated that nicotine is addictive. For cigarettes, the Surgeon General confirmed this conclusion in 1988.

464. Therefore, by the early to mid 1980s, leading scientists and organizations with

expertise in tobacco and drug addiction had come to the conclusion that nicotine was an addictive drug and that tobacco use was maintained by nicotine addiction.

465. In 1987, the APA published the Diagnostic and Statistical Manual Of Mental Disorders III-R ("DSM-III-R"), which specified that at least three of the following nine symptoms had to be present for the diagnosis of substance dependence:

- the substance is often taken in larger amounts over a longer period of time than intended;
- persistent desire or unsuccessful efforts to cut down or control substance use;
- a great deal of time spent in activities necessary to obtain the substance, use the substance (e.g. chain-smoking), or recover from its effects;
- frequent intoxication or withdrawal symptoms when expected to fulfill major role obligations at work, school or home;
- important social, occupational, or recreational activities are given up or reduced because of substance use;
- continued substance use despite having knowledge of having a persistent or recurrent social, psychological, or physical problem that is caused or exacerbated by the substance;
- marked tolerance;
- characteristic withdrawal symptoms; and
- substance often taken to relieve or avoid withdrawal symptoms.

466. Importantly, nicotine was now specifically identified in the DSM-III-R as a drug of dependence, with degrees of severity: mild, moderate and severe.

467. The next year, the focus in determining addiction became the user's loss of control over use of the drug. In his 1988 Report, the Surgeon General developed a set of criteria to determine whether tobacco-delivered nicotine is addicting. The Surgeon General's primary criteria for drug addiction were: (1) highly controlled or compulsive use (2) of a drug with mood altering effects and (3) drug-reinforced behavior.

468. The first criterion, highly controlled or compulsive use, refers to drug-seeking and

drug-taking behavior that is driven by strong, often irresistible urges. Such use persists despite a desire to quit or even repeated attempts to do so. This type of behavior has also been described as "habitual."

469. Drug addiction, however, is distinguished from habitual behaviors not involving drugs -- such as habitual exercising or overeating -- by the second criterion, the presence in the blood stream of a drug with psychoactive or mood-altering effects on the brain. Food, for example, which is necessary to sustain life, is not a drug and does not satisfy the second criterion.

470. Finally, the mood-altering drug must be capable of functioning as a reinforcer that can directly strengthen behavior leading to further drug ingestion. Such reinforcement exists where, for instance, the drug produces pleasant or rewarding sensations like stimulation, relaxation, or euphoria, or mitigates unpleasant withdrawal sensations experienced when a person stops using the drug.

471. This line of thinking was further bolstered in 1994 when the APA created the Diagnostic And Statistical Manual of Mental Disorders-IV ("DSM-IV"). In the DSM-IV, the APA recognized the existence of both nicotine dependence and nicotine withdrawal.

472. In the DSM-IV, "substance dependence" is defined as substance use that produces three or more of the following symptoms in users:

- Marked tolerance;
- a withdrawal syndrome and/or the substance is taken to relieve or avoid withdrawal symptoms;
- the substance is often taken in larger amounts over a longer period of time than intended;
- persistent desire or unsuccessful efforts to cut down or control substance use;
- a great deal of time spent in activities necessary to obtain the substance, use the substance (e.g. chain-smoking), or recover from its effects;

- important social, occupational, or recreational activities are given up or reduced because of substance use; and
- use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance;

473. The APA concluded in the DSM-IV that nicotine is a drug of dependence in people who ingest nicotine by smoking because the following criteria are present: tolerance, withdrawal, desire to quit, great deal of time spent using nicotine, and continued use despite medical problems.

474. Further reflecting the consensus judgment that nicotine is addictive, the investigation by the FDA leading to its Final Tobacco Rule issued in August 1996 confirmed that even by the most stringent criteria of the FDA, nicotine in cigarettes is an addictive drug.

475. The scientific community now knows, that nicotine is addictive under the 1964 Surgeon General's Report's definition in as well as the 1988 Surgeon General's Report's definition.

476. Nicotine also meets the criteria for substance dependence set forth in the 1994DSM -IV of the APA.

477. Today, most daily cigarette smokers satisfy the Surgeon General's primary criteria for addiction. The first criterion, highly controlled or compulsive use, is demonstrated by the fact that addicted smokers smoke numerous cigarettes throughout the day. Second, the nicotine in the cigarette tobacco stimulates the nicotinic receptors in the smoker's brain, a psychoactive effect that affects the smoker's mood. Third, the smoking behavior is reinforced by the pleasurable effects of nicotine and/or by the mitigation of unpleasant withdrawal sensations triggered by the

need for nicotine.

478. Published research indicates that 77 to 92 % of smokers are addicted to nicotine in cigarettes.

479. In addition, persons who have smoked at least one cigarette are about twice as likely to develop dependence on nicotine as are persons who have ever tried cocaine or alcohol to develop a dependence on those drugs.

480. Despite widespread general awareness about cigarettes and nicotine, smokers and potential smokers underestimate and do not fully appreciate the addictive nature of nicotine and the addictiveness of cigarette smoking, and the extent to which nicotine delivery and dosage is highly controlled and engineered.

481. Every year, nearly 20 million people in the United States attempt to quit smoking, but only 3 % have long-term success.

482. Most smokers smoke cigarettes regularly in order to experience nicotine's effects on the brain and the body, and therefore become addicted to nicotine. People who try to quit smoking often experience withdrawal symptoms that can be extremely disruptive. Accordingly, it is usually very difficult for the smoker to stop smoking cigarettes.

483. Most smokers require several quit attempts before they are successfully able to give up cigarettes, and many smokers die of smoking-related diseases before they are able to quit.

484. The fact that cigarette smoking is addictive is particularly troublesome in light of the fact that most smokers become addicted to smoking as teenagers.

485. Although the smoking habits of youth often differ from those of adults, children

and adolescents under the age of 18 can and do become addicted to nicotine through smoking cigarettes. It is well established that the vast majority of smokers begin smoking during childhood or adolescence, before they are able to fully comprehend that they could become addicted to nicotine and then will have great difficulty quitting smoking.

486. An overwhelming majority, 88 %, of daily smokers tried their first cigarette before age 18, and 70 % of people who have ever smoked daily began smoking daily before they were 18 years old. Thus, because nicotine addiction develops in the first few years of cigarette smoking, most smokers become addicted to nicotine during adolescence or early adulthood.

487. Underage smokers and potential smokers are particularly vulnerable to nicotine addiction because they are not capable of making a fully informed decision whether to start or continue smoking for a variety of reasons, including the fact that they underestimate personal risks and lack judgment which is developed through experience. Youth also fail to appreciate the risks and consequences of addictions.

(2) Defendants Publicly Disseminated False, Deceptive and Fraudulent Statements Denying That Nicotine in Cigarettes and Smoking Cigarettes Is Addictive

488. Despite the documented harm caused by nicotine, to this day, Defendants have engaged in a pattern of making false, fraudulent, and misleading statements, including half-truths, and suppressing information regarding the addictiveness of smoking and nicotine's role in causing that addiction.

(a) Philip Morris

489. In a 1992 pamphlet, Philip Morris stated that "those who term smoking an addiction do so for ideological, not scientific, reasons."

490. In 1994, counsel for Philip Morris prepared a document titled "Smoking and Health Questions and Answers," which, in an attachment titled "Smoking and Addiction," narrowly defined "addiction" and cited the ineffectiveness of nicotine gum and patches as evidence that nicotine was not addictive.

491. In a 1994 published statement in The New York Times, Philip Morris stated that it "does not believe cigarette smoking is addictive."

492. On April 14, 1994, the President and Chief Executive Officer of Philip Morris, William I. Campbell, testified under penalty of perjury in a hearing before the House Subcommittee on Health and the Environment, which was televised nationwide. During this hearing, Campbell affirmatively denied that nicotine is addictive:

Rep. Ron Wyden: Let me ask you Do you believe
that nicotine is not addictive?
Mr. Campbell: I believe nicotine is not addictive, yes.

493. On May 9, 1994, a telefax letter from Cathy Ellis, Director of Research at Philip Morris, was sent to The Honorable Henry Waxman, Chairman, Subcommittee on Health and the Environment, Committee on Energy and Commerce, denying nicotine's addictiveness under an exceedingly outdated definition of addiction that the scientific and medical community had abandoned by 1964. She claimed that nicotine could be described as addictive only if it caused smokers to experience "intoxication, pharmacological tolerance, and physical dependence in a

manner that would impair the smokers' ability to exercise a free choice to continue or to quit smoking." (emphasis added).

494. In the May 12, 1997 issue of Time magazine, then President and CEO of Philip Morris. James Morgan was quoted from his deposition testimony as stating, "If [cigarettes] are behaviorally addictive or habit forming, they are much more like . . . Gummi Bears, and I eat Gummi Bears, and I don't like it when I don't eat my Gummi Bears, but I'm certainly not addicted to them."

495. In January 1998, Geoffrey Bible, CEO of Philip Morris Companies, submitted testimony that stated in part:

We recognize that nicotine, as found in cigarette smoke, has mild pharmacological effects, and that, under some definitions, cigarette smoking is "addictive." The word "addiction" has been and is currently used differently by different people in different contexts, and the definition of the term has undergone significant changes over the past several decades. In 1964, for example, the Advisory Committee to the Surgeon General of the United States concluded that smoking, although "habit forming," did not fit within its definition of "addiction." However, in 1988, the Surgeon General redefined the term, and concluded that smoking is "addictive." We have not embraced those definitions of "addiction" which do not include such as historically accepted and objective criterion, such as intoxication and physical withdrawal, as important markers.

Bible acknowledged that Philip Morris Companies' position was "at odds . . . with the public health community," and said that for the sake of a consistent public health message, Philip Morris Companies would not debate the addictiveness of nicotine except insofar as it was "necessary to defend ourselves and our opinions in the courts."

(b) R.J. Reynolds

496. In an May 8, 1990 letter drafted in response to consumer inquiry, a R.J. Reynolds public relations officer categorically denied the addictiveness of nicotine, stating that "[t]here is nothing about smoking, or about the nicotine in cigarettes, that would prevent smokers from quitting."

497. The Cologne office of R.J. Reynolds International faxed a December 14, 1992 draft statement titled "Arguments Against The E.C. Cigarette Warning Label 'Smoking Causes Addiction'," which stated that "on an 'addiction scale,' nicotine is less addictive than food" and that "nicotine improves performance, renders the user more alert and increases the efficiency of performance and reduces anxiety."

498. Counsel for R.J. Reynolds prepared an anticipated Q & A for CEO James Johnston, dated April 6, 1994, which said that nicotine was "not addictive," and that the term "addiction" was misused in the context of cigarette smoking.

499. On April 14, 1994, Johnston, the Chairman and Chief Executive Officer of R.J. Reynolds, testified under penalty of perjury in a hearing before the House Subcommittee on Health and the Environment, which was televised nationwide. During this hearing, Johnston affirmatively denied that nicotine is addictive:

Rep. Ron Wyden:	Let me ask you Do you believe that nicotine is not addictive?
Mr. Johnston:	Congressman, cigarettes and nicotine clearly do not meet the classic definitions of addiction. There is no intoxication.

500. R.J. Reynolds turns a blind eye toward such questions unless external forces call attention to them. For instance, nicotine expert and former product evaluation Vice President

DeBethizy testified that, as of the time of his departure in 2000, R.J. Reynolds has never looked at the following research questions:

- Whether nicotine affects children differently than adults, or otherwise as a function of age, even though it is generally known that chemicals can be metabolized differently depending on the investigator's age. (Metabolizing is what happens after something is absorbed by the body.);
- Whether there are age-related effects of nicotine on the brain such as the time it takes for nicotine to move from where it is absorbed to the brain;
- Whether addiction to nicotine, or susceptibility to addictiveness, varies as a function of age.

(c) BATCo

501. In comments published in the Wall Street Journal on October 31, 1996, the CEO of BAT Industries and Director of BATCo, Martin Broughton, denied any concealment of research linking smoking and addiction, saying that "[w]e have no internal research which proves that . . . smoking is addictive."

502. In a December 3, 1990 document, BATCo prepared Q&A's to respond to public inquiries. The answer to expected questions denied evidence of the addictiveness of cigarettes.

(d) American Tobacco Company

503. On April 14, 1994, the Chief Executive Officer of the American Tobacco Company, Donald S. Johnston, testified under penalty of perjury in a hearing before the House Subcommittee on Health and the Environment, which was televised nationwide. During this

hearing, Johnston affirmatively denied that nicotine is addictive.

Rep. Ron Wyden: Let me ask you Do you believe that nicotine is not addictive?

Mr. Johnston: And I too, believe that nicotine is not addictive.

(e) Brown & Williamson

504. On April 14, 1994, the Chairman and Chief Executive Officer of Brown & Williamson, Thomas Sandefur, testified under penalty of perjury in a hearing before the House Subcommittee on Health and the Environment, which was televised nationwide. During this hearing, Sandefur affirmatively denied that nicotine is addictive:

Rep. Ron Wyden: Let me ask you Do you believe that nicotine is not addictive?

Mr. Sandefur: I believe nicotine is not addictive.

505. In a May 19, 1994 press report, relating to nicotine studies that had been recently released to the public, but which had been withheld from the Surgeon General in 1964, Brown & Williamson stated that the studies "added nothing of consequence to what already had was available to researchers and others, including the U.S. Surgeon General."

506. In 1999, Brown & Williamson posted on its website a document called "Hot Topics: Smoking and Health Issues." While this document did state, in part, that "by some definitions, including that of the Surgeon General in 1988, cigarette smoking would be classified as addictive," it went on to state that:

Brown & Williamson believes that the relevant issue should not be how or whether one chooses to define cigarette smoking as addictive based on an analysis of all definitions available. Rather, the issue should be whether consumers are aware that smoking may be difficult to quit (which they are) and whether there is anything in cigarette smoke that impairs smokers from

reaching and implementing a decision to quit (which we believe there is not.)

(f) Lorillard

507. On April 14, 1994, the Chairman and Chief Executive Officer of Lorillard, Andrew H. Tisch, testified under penalty of perjury in a hearing before the House Subcommittee on Health and the Environment, which was televised nationwide. During this hearing, Tisch affirmatively denied that nicotine is addictive:

Rep. Ron Wyden: Let me ask you Do you believe that nicotine is not addictive?
Mr. Tisch: I believe that nicotine is not addictive.

(g) Liggett

508. On April 14, 1994, the Chairman and Chief Executive Officer of the Liggett Group, Inc., Edward A. Horrigan, testified under penalty of perjury in a hearing before the House Subcommittee on Health and the Environment, which was televised nationwide. During this hearing, Horrigan affirmatively denied that nicotine is addictive:

Rep. Ron Wyden: Let me ask you Do you believe that nicotine is not addictive?
Mr. Horrigan: I believe nicotine is not addictive.

(h) Tobacco Institute

509. Over the years, the Tobacco Institute, on behalf of the Cigarette Company Defendants, publicly disseminated many false, deceptive, or misleading statements disputing the addictiveness of cigarette smoking, including the following:

510. The Tobacco Institute issued a March 17, 1983 press release that was sent and delivered to newspapers and other news outlets across the United States, and made statements

strongly disputing the addictiveness of cigarette smoking

511. In 1988, when the Surgeon General concluded, based on non-industry research, that nicotine is addictive, the Tobacco Institute, on behalf of the tobacco companies, issued a press release stating:

Claims that cigarettes are addictive contradict common sense . . . the claim that cigarette smoking causes physical dependence is simply an unproven attempt to find some way to differentiate smoking from other behaviors . . . The claims that smokers are 'addicts' defy common sense and contradict the fact that people quit smoking every day.

512. In another 1988 press release, the Tobacco Institute stated that the Surgeon General's declaration that smoking is an addiction was "[a]n escalation of anti smoking rhetoric . . . without medical or scientific foundation."

513. In a 1989 interview on "Good Morning America," that was nationally broadcast, a Tobacco Institute spokesperson stated: "I can't allow the claim that smoking is addictive to go unchallenged."

514. In another interview, in 1990 on "Larry King Live," that was broadcast on national television, a Tobacco Institute spokesperson stated:

[A]bout 95 percent of those people have quit cold turkey. They've walked away from cigarettes and they've not gone through formal treatment centers or anything else. It's not like alcoholism or drug abuse. It's not an addiction.

515. Statements such as this, frequently repeated by the Cigarette Companies and their agents, were misleading and deceptive when made.

516. Even today, although certain Defendants have acknowledged, to varying degrees,

the overwhelming evidence that smoking is addictive, none admits on its website that nicotine is the drug delivered by cigarettes that creates and sustains addiction.

517. On its website, Philip Morris states that "[w]e agree with the overwhelming medical and scientific consensus that cigarette smoking is addictive." However, while adding that it can be difficult to quit smoking, there is no mention of the established fact that the nicotine in cigarettes is what causes the smoker's addiction.

518. On its website, BATCo states that "[w]e accept the common understanding today that smoking is addictive." Yet, when discussing quitting smoking, the company makes no mention of the role nicotine plays in maintaining the addiction, downplaying the success of nicotine replacement therapy in helping smokers quit, and stating that the most important factors in successful quitting are "having the motivation and the self-belief that you can quit."

519. On its website, R.J. Reynolds states that "[m]any people believe that smoking is addictive, and as that term is commonly used, it is." However, R.J. Reynolds later equivocates on this statement, stating its disagreement with the opinion in the health and scientific communities that smoking is as addictive as heroin or cocaine. No mention is made of nicotine and its strong hold on smokers.

520. On its website, Brown & Williamson states that it "agrees that, by current definitions of the term 'addiction,' including that of the Surgeon General in 1988, cigarette smoking is addictive." However, like R.J. Reynolds, it also states its rejection of a comparison between smoking cigarettes and using heroin or cocaine. Finally, while admitting that quitting smoking can be very difficult, it stated its rejection of the notion that "the term 'addiction' should

be used to imply that there is anything in cigarette smoke that prevents smokers from reaching and implementing a decision to quit." Nicotine is not mentioned in this addiction section.

521. In addition, today, in spite of the overwhelming medical and scientific evidence to the contrary, only one Tobacco Company Defendant, Liggett, has placed a warning on its packages stating that nicotine is addictive.

(3) Internal Documents and Statements by Defendants Establish That Each Defendant Well Knew that Its Statements About Addiction Were False, Deceptive, and Fraudulent When Made

522. Despite making public proclamations denying the addictiveness of smoking and nicotine, Defendants have long known that these statements were false, deceptive, and fraudulent when made.

523. Defendants have studied nicotine and its effects for quite some time, and the documents describing their examination of nicotine's pharmacological effects on smokers – whether they characterized it as "addictive" or "habituating," –demonstrate unequivocally that defendants understood the central role nicotine plays in keeping smokers smoking, and thus its critical importance to the success of their industry.

524. Industry documents also indicate that Defendants had an early understanding of a concept that, over a decade later, was labeled the "rate hypothesis" of addictive drug action by NIDA. The rate hypothesis describes the importance of the speed of drug delivery as an important determinant of the addictiveness of a given chemical entity. It helps explain, for example, why the crack form of cocaine, smoked and injected forms of heroin, and smoked forms of nicotine have substantially stronger addictive effects than when the same substances are

delivered more slowly to the body.

525. These documents, and others, clearly reveal that the Defendants understood that the rate of drug delivery was an important determinant of the effects of the drug on the brain and in determining addiction, and reveal a sophisticated understanding of this concept that substantially predates NIDA's research efforts on the topic.

526. Additional internal records demonstrate that Defendants and their agents knew that cigarette smoking and tobacco generally were the means of delivering nicotine, which was the critical component in maintaining the addiction necessary to sustain and enhance their profits. Indeed, Defendants sought to maximize their profits by designing cigarettes to induce and maintain the smoker's addiction.

527. Other documents demonstrate Defendants' understanding and acceptance of nicotine's role in maintaining cigarette smoking by showing their recognition that smokers adjust their smoking behavior in order to obtain their necessary nicotine intake. This behavioral adaptation of smokers is known as "compensation," or "titration," a concept Defendants have been well aware of for many years.

528. As evidenced by these documents, Defendants understood that their cigarettes did produce powerful pharmacological effects on the user, that nicotine was the principal agent responsible for these effects, and that to have a chance at success in the marketplace, a cigarette had to be able to deliver enough nicotine to trigger the desired physiological effects.

529. These industry documents also support the conclusion that Defendants knew early on in their research that if a cigarette did not deliver a certain amount of nicotine, smokers would

not be addicted.

530. Defendants recognized that while genuinely low-yield cigarettes could lead smokers away from smoking altogether, smokers were nonetheless concerned about their exposure to tar and nicotine.

531. To address the smokers' concerns and to avoid losing them from the marketplace, Defendants took advantage of the FTC testing system by designing purportedly low-yielding cigarettes to register low FTC tar and nicotine yield values that would be acceptable to cigarette smokers while at the same time facilitating the efforts of smokers to get their desired levels of nicotine. That is, the cigarettes were designed to make it easy for consumers to obtain higher tar and nicotine yields than those obtained using the FTC testing method. See Section IV D below

532. Defendants also concealed their knowledge and understanding of nicotine because they wished to avoid FDA regulation of its products.

533. The following examples of documents demonstrate Defendants vast scope of knowledge regarding nicotine and its addictive effects on smokers.

(a) Philip Morris

534. On May 5, 1964, William L. Dunn, a Philip Morris psychologist (who later became a Principal Scientist for the company) stated, "The pharmacological need is readily definable. The smoker seeks the subjective state that results from the introduction of nicotine into the bloodstream." In the same document, Dunn also stated that any less hazardous cigarette product developed by Philip Morris "must induce the psychopharmacological state now induced

by nicotine absorption into the bloodstream."

535. In a June 1966 report titled "Market Potential of a Health Cigarette," Philip Morris researchers Dunn and Myron Johnston stated that without nicotine, a health cigarette would not sell: "[A]ny health cigarette must compromise between health implications on the one hand and flavor and nicotine on the other. . . . Flavor and nicotine are both necessary to sell a cigarette. A cigarette that does not deliver nicotine cannot satisfy the habituated smoker and cannot lead to habituation, and therefore would almost certainly fail."

536. With this understanding by the mid-1960's, Philip Morris, armed with the knowledge of nicotine's addictiveness, was already manipulating the pH of tobacco to enhance the psychoactive effects of nicotine on the brain.

537. Philip Morris's awareness of nicotine as a crucial ingredient in cigarettes was discussed in a November 1, 1971 research report authored by Thomas Schori and approved by Dunn. It discussed a 1943 scientific study's results which suggested that a habitual smoker continues to smoke because of the pharmacological effects of nicotine in the cigarettes.

538. Notwithstanding its longtime public denials that smoking cessation induces withdrawal – one of the classic hallmarks of addiction – Philip Morris knew by 1971 about the difficulty of quitting and the effects of cessation attempts on the smoker:

Even after eight months quitters were apt to report having neurotic symptoms, such as feeling depressed, being restless and tense, being ill-tempered, having a loss of energy, being apt to doze off. They were further troubled by constipation and weight gains which averaged about five pounds per quitter . . . This is not the happy picture painted by the Cancer Society's anti-smoking commercial which shows an exuberant couple leaping into the air and kicking their heels with joy because they have kicked the habit. A more appropriate commercial would show a restless, nervous, constipated husband bickering viciously with his bitchy wife who is

nagging him about his slothful behavior and growing waistline.

539. Schori and Dunn stated in a January 1972 Report titled "Tar, Nicotine, and Cigarette Consumption" that their research

supports the notion that smokers develop a daily nicotine intake quota and that when smoking cigarettes differing in nicotine delivery from that to which they are accustomed they tend to modify their consumption rate in order to maintain their normal quota. No support was found for the analogous notion of a daily tar intake quota, however.

540. In a January 1, 1972 research report titled "Motives and Incentives in Cigarette Smoking," Dunn stated that people smoke in order "to obtain nicotine," and that nicotine "is the industry's product," adding that "without nicotine, the argument goes, there would be no smoking."

541. Dunn noted again the importance of nicotine when reporting on the 1972 St. Martin Conference in the same report:

The majority of the conferees would go even further and accept the proposition that nicotine is the active constituent of cigarette smoke. Without nicotine, the argument goes, there would be no smoking. Some strong evidence marshaled to support this argument:

- 1) No one has ever become a cigarette smoker by smoking cigarettes without nicotine.
- 2) Most of the physiological responses to inhaled smoke have been shown to be nicotine-related.

542. He also urged the industry to view the cigarette pack as the "storage container for a day's supply of nicotine," the cigarette as the "dispenser for a dose unit of nicotine," and the puff of smoke as the "vehicle of nicotine."

543. During a 1973 presentation, Dunn reported on the findings of a CTR research conference organized to determine why people smoke cigarettes, stating that the primary incentive for smoking was "the immediate salutary effect of inhaled smoke upon body function."

544. An October 1, 1975 Philip Morris research memorandum, titled "Smoke Impact, Part I: Cigarette Smoking and Heart Rate," stated that "there is an optimal dose of nicotine, too little or too much is rejected by tobacco smokers."

545. In a March 1, 1977 memorandum, Philip Morris researcher Stanley Schachter described a smoker as an "addict" who smokes to maintain his nicotine levels:

To the extent that [he is] an addict, he is probably smoking to keep nicotine or one of its active metabolites at some optimal level. If, then, the heavy smoker does switch to low nicotine brands, he may very well end up smoking more cigarettes and taking more puffs of each.

546. A December 1, 1978 Philip Morris report titled "The Nicotine Program" stated that "[n]icotine, a powerful pharmacological agent with multiple sites of action, is the most important component of cigarette smoke" and that "[n]icotine and an understanding of its properties are important to the continued well-being of our cigarette business"

547. In a 1978 report, titled "Exit-Brand Cigarettes: A Study of Ex-Smokers," scientist Francis J. Ryan of the Philip Morris Research Center demonstrated Philip Morris's substantial understanding of the role of nicotine in tobacco use at that time: "We think that most smokers can be considered nicotine seekers, for the pharmacological effect of nicotine is one of the rewards that come from smoking. When the smoker quits, he foregoes his accustomed nicotine. The change is very noticeable, he misses the reward, and so he returns to smoking."

548. In a February 3, 1979 letter to Hugh Cullman, Philip Morris's President and CEO, titled "The Slow Motion Self-Suicide of the Tobacco Industry," D. Todorovic, a retired Philip

Morris International researcher, stressed the negative impact of "cigarette substitutes" on conventional cigarette sales and opposed their development:

It is obvious that such a tremendous sales gain of 'cigarette substitutes' is done at the expense of normal, conventional cigarettes, and there lies all the danger in the near future for the very survival of [the] Tobacco Industry, because these 'cigarette substitutes' are unable to make smokers addicts to tobacco. The present smokers of 'cigarette substitutes' are the future smoker quitters.

549. Given the company's understanding of the importance of nicotine in maintaining smoking addiction, and thus its profits from cigarette sales, this anti-"cigarette substitute" sentiment was prevalent at Philip Morris. Ian Uydess, a Philip Morris scientist from 1977 until 1989, commented that Philip Morris believed that a cause and effect relationship existed between market performance and nicotine delivery levels:

This belief . . . was reflected in many of the comments made at a number of internal meetings at which zero and 'ultra low' delivery products were being discussed. Some scientists even predicted that products made with 'no' or 'too low' a level of nicotine would probably fail in test markets, 'no matter what they tasted like.'

550. In a 1980 memorandum to Philip Morris executive Robert Seligman concerning Philip Morris's nicotine receptor programs "aimed at understanding the specific action of nicotine which causes the smoker to repeatedly introduce nicotine into his body," Dunn stated that "Any action on our part, such as research on the psychopharmacology of nicotine, which implicitly or explicitly treats nicotine as a drug, could well be viewed as a tacit acknowledgment that nicotine is a drug.

551. In a March 5, 1980 memorandum, Seligman defended Philip Morris's support of nicotine receptor research at the University of Rochester, saying that "nicotine is a powerful pharmacological agent with multiple sites of action and may be the most important component of

cigarette smoke."

552. In an August 12, 1980 memorandum to the Vice President of Research for Philip Morris, Thomas Osdene, Philip Morris's Director of Science and Technology, ranked nicotine research as the top priority, because "the thing we sell most is nicotine."

553. A November 8, 1990 Philip Morris document to Research and Development Vice President Cathy Ellis from Frank Gullotta (a Philip Morris chemist) titled "Raison d'etre" stated: "We have known that there are optimal cigarette nicotine deliveries for producing the most favorable physiological and behavioral responses."

554. Finally, documents show that during the 1970s and 1980s, researchers at Philip Morris attempted to find an analogue of nicotine, *i.e.* a substance of similar chemical structure, that had the same effect on the brain but no side effects on the cardiovascular or cerebral systems.

555. Philip Morris filed its first nicotine-analogue patent application in June 1976, stating only that the patented compounds had "utility as intermediates for the production of ultimate compounds of known utility."

556. In June 1977, the company applied for a second patent on the synthesis of 2-alkyl nicotinoids, stating only that ". . . the synthesis of ortho-alkylated nicotinoids and their evaluation as insecticides is of considerable interest." There followed a number of additional patents on the synthesis of other nicotine analogues.

557. Some of these later patents, including the last two patents filed in 1989 (No. 5,015,741) and 1990 (No. 5,138,062), contained limited mention of the pharmacologic effects of nicotine in experimental animals, specifically the tranquilizing and sedating effects of the drug

when it was instilled directly into the rat brain.

558. During the late 1970s, Philip Morris International established a clandestine screening program to determine whether particular chemical variants of nicotine affected the brain differently than the rest of the body.

559. Among the screening tests used were tests that could also be used to evaluate a drug's addictive potential: torpedo fish membrane binding (a test developed in the 1960s); the guinea pig ileum model (developed in the 1950s); prostration test (developed in 1977-1978, in which nicotine was directly injected into a test animal's brain); discrimination testing (in which a test animal already trained to press a lever after receiving nicotine was then given an intramuscular injection of a test compound); and finally self-administration, in which rats were observed to see if they would repeatedly give themselves injections of the test drug.

(b) R.J. Reynolds

560. In a November 16, 1967 response to an inquiry on a nicotine inhibitor patent, R.J. Reynolds scientist Eldon D. Nielson wrote that the tobacco companies would not want such an item, as they were "selling a nicotine effect, not fighting it."

561. Because it, understood the importance of retaining sufficient nicotine to maintain dependence on its so-called "low tar/low nicotine" cigarettes, R.J. Reynolds internally proposed in 1971 that the company undertake research into determining more exactly the "habituating level of nicotine."

562. In a March 28, 1972 memorandum regarding the development of new products, R.J. Reynolds's Claude Teague stated that for the typical smoker, "nicotine satisfaction is the dominant desire." and that "[i]n designing any cigarette product, the dominant specification

should be nicotine delivery."

563. In an April 14, 1972 report, titled "Research Planning Memorandum on the Nature of the Tobacco Business and the Crucial Role of Nicotine Therein," Teague stated:

In a sense, the tobacco industry may be thought of as being a specialized, highly ritualized and stylized segment of the pharmaceutical industry. Tobacco products, uniquely, contain and deliver nicotine, a potent drug with a variety of physiological effects. . . . [a] tobacco product is, in essence, a vehicle for delivery of nicotine. . . . If nicotine [as proposed above] is the sine qua non of tobacco products and tobacco products are recognized as being attractive dosage forms of nicotine, then it is logical to design our products – and where possible, our advertising – around nicotine delivery rather than 'tar' delivery or flavor. (emphasis added)

564. In a 1973 report, Teague stated: "In essence, a cigarette is a system for delivery of nicotine to the smoker in attractive, useful form."

565. In an August 4, 1976 speech to R.J. Reynolds's international division, Director of Research Murray Senkus affirmed the importance of nicotine, stating, "Without any question, the desire to smoke is based on the effect of nicotine on the body."

566. In an August 19, 1976 Three-Year Action Plan for New Products, nicotine was described as a "traditional need," and "very basic to the cigarette industry's existence."

567. In a September 21, 1976 memorandum from John L. McKenzie to A.P. Ritchy, titled "Product Characterization Definitions and Implications," nicotine was defined as "the psychopharmacological agent in tobacco which is one of the key factors in satisfaction"

568. In a February 7, 1978, memorandum titled "Nicotine Satisfaction – Consumer Test," R.J. Reynolds researchers C.L. Neumann and J.P. Dickerson stated that the focus of the consumer satisfaction program would be on nicotine, as it was "probably the most important

satisfaction variable," and because nicotine had "known physiological activity."

569. In another example, a February 5, 1980 interoffice memorandum from H.E. Guess stated the concern that the reduced level of nicotine in Reynolds's Winston B Cigarettes would make them less attractive to Winston smokers.

570. A 1991 R.J. Reynolds research report stated, "We are basically in the nicotine business."

(c) BATCo

571. A 1959 BATCo internal document stated: "[T]o lower nicotine too much might end up destroying the nicotine habit in a large number of consumers and prevent it from ever being acquired by new smokers"

572. In the early 1960s, BATCo sponsored research at the Battelle Memorial Institute at Geneva to investigate the physiological aspects of smoking. In a November 15, 1961 memorandum detailing discussions regarding current research and development projects, Charles Ellis, scientific advisor to the BAT Board of Directors, acknowledged BATCo's knowledge that nicotine is addictive: "Experiments of Hippo have led to a great increase in our knowledge of the effects of nicotine. . . . Smoking demonstrably is a habit based on a combination of psychological and physiological pleasure, and it also has strong indications of being an addiction. It differs in important features from addiction to other alkaloid drugs, but yet there are sufficient similarities to justify stating that smokers are nicotine addicts."

573. In another 1961 BATCo internal document, Sir Charles Ellis, stated: "If the competition is to be met successfully, it must be important to know how the tranquilizing and stimulating effects of nicotine are produced and the relation of addiction to the daily nicotine intake."

574. Ellis asserted in a 1962 meeting attended by Brown & Williamson representatives that "smoking is a habit of addiction," and scientists in the Geneva laboratories of the International Division of the Battelle Memorial Institute reported to BATCo on the mechanics of nicotine addiction in 1963.

575. On February 2, 1962, BATCo scientists wrote the "Final Report on Project HIPPO I." The purpose of the project was to study (1) the action of nicotine in the diuresis mechanism; (2) the possible interference of nicotine in the "stress" mechanism; (3) the inhibiting effect of nicotine on body weight; and (4) the possible activity of nicotine on other hypothalamic functions.

576. Around that same time, the Battelle drafted a January 3, 1962 research proposal regarding "Project Ariel" for BATCo in London. The proposed new smoking device would administer nicotine while "avoiding the well-known disadvantages inherent in actual cigarette smoking" but it needed to resemble a tobacco smoking product "to avoid interference with the legislation in force about drugs," and "it should also create addiction in the same relative amounts."

577. Through the 1960s, BATCo continued to discuss and research a product that was simply a nicotine delivery device. This device would allow the smoker to "obtain a satisfying dose of nicotine" without any of the harmful effects from smoke.

578. By 1964, BATCo had developed the prototype called Ariel which allowed for "a reasonably even release of nicotine" for the smoker.

579. In a May 30, 1963 report titled "A Tentative Hypothesis on Nicotine Addiction," BATCo scientists G. Kaselbach and O. Zibert discussed nicotine's addictive properties and its ability to produce tolerance: "The hypothalamo-pituitary stimulation of nicotine is the beneficial

mechanism which makes people smoke; in other words, nicotine helps people cope with stress. In the beginning of nicotine stimulation, relatively small doses can perform the desired action. Chronic intake of nicotine tends to restore the normal physiological functioning of the endocrine system, so that ever-increasing dose levels of nicotine are necessary to maintain the desired action."

580. An October 15, 1963 research report titled "The Fate of Nicotine in the Body," prepared by the Battelle Institute, stated that research had demonstrated that nicotine was a key part of tobacco habituation and/or addiction and that the tobacco industry should focus its future research on the effects of nicotine in the body of smokers:

"There is increasing evidence that nicotine is the key factor in controlling, through the central nervous system, a number of beneficial effects of tobacco smoke, including its action in the presence of stress situations. In addition, the alkaloid appears to be intimately connected with the phenomenon of tobacco habituation (tolerance) and/or addiction. Detailed knowledge of these effects of nicotine in the body of smokers is therefore of vital importance to the tobacco industry, not only in connection with their present standard products, but also with regard to future potential uses of tobacco alkaloids."

581. A 1966 internal tobacco industry report issued by I.W. Hughes of BATCo concluded:

It would appear that increased smoker response is associated with nicotine reaching the brain more quickly. . . . On this basis, it appears reasonable to assume that the increased response of a smoker to the smoke with a higher amount of extractable nicotine may be either because the nicotine reaches the brain in a different chemical form or because it reaches the brain more quickly.

582. In 1969, D.J. Wood, a BATCo researcher, gave a presentation for BATCo company executives in which he detailed the company's pursuits in pharmacological research, which focused on nicotine. He stated that the BATCo researchers believed that nicotine was

responsible for the "satisfaction of smoking," and that future research was aimed at finding out more about how the human body absorbed nicotine.

583. In 1975, BATCo scientist A. Kay Comer stated that:

In summary, it appears that most workers who are not directly concerned with the tobacco industry use the terms addiction or dependence rather than habituation and can be considered quite correct in doing so. If cigarette smoking is as addictive as the evidence suggests, it is not surprising that antismoking campaigns are so ineffective. . . ."

584. In a June 27, 1978 document titled "Compensation for Changed Delivery,"

BATCo scientist D.E. Creighton stated that:

Numerous experiments have been carried out in Hamburg, Montreal, and Southampton within the company as well as many other experiments by research workers in independent organizations, that show that generally smokers do change their smoking patterns in response to changes in the machine smoked deliveries of cigarettes. . . . In general, a majority of habitual smokers compensate for changed delivery, if they change to a lower delivery brand than their usual brand. If they choose lower delivery brand which has a higher tar to nicotine ratio than their usual brand (which is often the case with lower delivery products) the smokers will in fact increase the amounts of tar and gas phase that they take in, in order to take the same amount of nicotine.

585. An August 28, 1979 memorandum, entitled "Key Areas – Product Innovation Over Next 10 Years for Long-term Development," stated that smokers depend on the tobacco industry's products not just for some flavor and satisfaction but because their bodies literally depend on nicotine to feel and function well. BATCo researcher L.C.F.B. Blackman stated: "[H]igh profits additionally associated with the tobacco industry are directly related to the fact that the customer is dependent upon the product."

586. An April 11, 1980 BATCo document entitled "What Three Radical Changes Might, Through the Agency of R & D, Take Place in this Industry by the End of the Century,"

stated that "B.A.T. should learn to look at itself as a drug company rather than as a tobacco company."

587. In a March 25, 1983 memorandum titled "Project Recommendations," which dealt with the relationship of nicotine level to switching behavior, BATCo researcher Andrew J. Bellman stated that "nicotine is the addictive agent in cigarettes."

588. In a January 26, 1984 research paper, BATCo researcher Colin C. Greig stated that because nicotine "is the major or sole pharmacologically active agent in smoke, it must be presumed that this is the preferred method of absorption and thus why people inhale smoke."

589. In an undated document, S.J. Green, one of BATCo's top scientists in its Research & Development Department, stated that "[s]moking is fairly irrational like other drug dependencies."

590. In another undated document, Green referred to smokers as "members of the nicotine dependent majority."

591. An undated BATCo document written by D.E. Creighton, entitled "Structured Creativity Group Presentation," stated: "As suggested earlier, high on the list of product requirements is an adequate level of nicotine to sustain the smoking habit. Smokers have a nicotine threshold below which it is ineffective."

592. In another undated BATCo document, Greig described cigarettes as a "'drug' administration system for public use," with the advantage that "nicotine is the lowest dose 'common' drug available. He added that if the company could continue to keep its customers smoking, all BATCo would need was "a larger bag to carry the money to the bank."

593. In a BATCo memorandum, entitled "Structured Marketing Group, Marketing Scenario," Greig stated that: "A cigarette as a 'drug' administration system for public use has very

significant advantages. i) Speed . . . ii) Within 10 seconds of starting to smoke, nicotine is available in the brain." (emphasis in original)

594. A 1976 BATCo document, entitled "The Project in the Early 1980s," clearly reveals BATCo's understanding of the role of nicotine addiction in smoking:

Taking a long-term view, there is a danger in the current trend of lower and lower cigarette deliveries – i.e. the smoker will be weaned away from the habit. . . . Nicotine is an important aspect of satisfaction and if the nicotine delivery is reduced below a threshold satisfaction level, then surely smokers will question more readily why they are indulging in an expensive habit.

595. From the 1960s on, as evidence of smoking's adverse effects mounted, smokers were encouraged to try cigarettes with lower reported tar and nicotine values, and smokers were increasingly gravitating toward cigarettes marketed as lower delivery products. BATCo was clearly states concerned that this trend toward lower reported nicotine might mean that the market would extinguish itself because people would get to the point that smoking really would be a matter of taste and pleasure and not nicotine receptors in the brain, and then people would find it easier to quit.

(d) Brown & Williamson

596. Brown & Williamson was well aware of the smoking and nicotine knowledge held by Defendants. In 1963, B&W General Counsel Addison Yeaman stated that "nicotine is addictive" and that "we are . . . in the business of selling nicotine, an addictive drug effective in the release of stress mechanisms[.]"

597. In a June 19, 1963 letter, Robert K. Heimann described nicotine as "the characteristic and essential element in tobacco and tobacco smoke." In addition, Heimann reported that the "reduction of nicotine to very low levels results in an unsatisfactory smoke."

598. Brown & Williamson considered providing its research on the addictiveness of

nicotine to the Surgeon General prior to the first Report on Smoking and Health in 1964.

However, in a July 3, 1963 cable to A.D. McCormick, counsel for BATCo, Yeaman stated his intention not to produce the research results to the Surgeon General:

Hoyt of TIRC agreed to withhold disclosure Battelle report to TIRC or SAB until further notice from me. Finch agrees submission Batelle or Griffith developments to Surgeon General undesirable and we agree continuance of Battelle work useful but disturbed at its implications re cardiovascular disorders We believe combination Batelle work and Griffith's developments have implication which increase desirability reevaluation TIRC and reassessment fundamental policy re health.

599. In a May 19, 1972 letter to McCormick, counsel for BATCo, Yeaman recommended that in a BATCo statement being prepared in response to a British Government statement concerning cigarette smoking and health issues, the word "habit" should be changed to "practice."

600. Minutes from a 1974 Brown & Williamson/BATCo conference stated: "Whatever the characteristics of cigarettes as determined by smoking machines, the smoker adjusts his pattern to deliver his own nicotine requirements."

601. An August 24, 1978 Brown & Williamson document to M.J. McQue from Assistant Brand Manager H. David Steele regarding "Future Consumer Reaction to Nicotine" stated: "Very few consumers are aware of the effects of nicotine, i.e., its addictive nature and that nicotine is a poison."

(e) Lorillard

602.

[REDACTED]

[REDACTED]

[REDACTED]

603. In an August 7, 1964 memorandum regarding "Potassium Carbonate," H.D. Anderson told Lorillard's legal counsel that "[t]here seems no doubt that the 'kick' of a cigarette is due to the concentration of nicotine in the blood-stream which . . . is a product of the quantity of nicotine in the smoke and the speed of transfer of that nicotine from the smoke to the blood-stream."

604. In a March 2, 1976 presentation, the Will Graham Company informed Lorillard that "the taste of tobacco may be one of the least significant reasons why a person smokes," adding that, "it certainly ranks well below the impact of nicotine" for smokers.

605.

[REDACTED]

[REDACTED]

[REDACTED]

606. A July 16, 1976 Lorillard memorandum to Dr. H.J. Minnemeyer from M.S. Ireland, entitled "Research Proposal -- Development of Assay for Free Nicotine," stated:

Indications are that the smoker adjusts his smoking habits to satisfy the desire for nicotine either by frequent of large puffs on the cigarette, or smoking a large number of cigarettes. According to a number of authors "free" nicotine produces a more immediate impact on the smoker.

607.

[REDACTED]

[REDACTED]

608.

[REDACTED]

[REDACTED]

(f) American Tobacco

609. Between 1940 and 1970, the American Tobacco Company sponsored 111 studies on the biological effects of cigarettes, with 93, or over 80%, related to the effects of nicotine on the body.

610. For example, in one 1945 study, funded by the company, entitled "The Role of Nicotine in the Cigarette Habit," Notably, smokers were given extremely low-nicotine cigarettes. The study found that half of the subjects "definitely missed the nicotine."

611. Well aware of the addictive effects of nicotine on smokers, American focused its efforts on increasing the amount of nicotine in its tobacco products. While extensively detailed in Section IV. C of these findings, See Sec. IV.C, infra, some examples of these efforts are detailed here.

612. In 1963, American experimented by adding commercial nicotine to reconstituted tobacco.

613. Later, in 1967, American investigated the production of nicotine from tobacco plants (n rustica) with almost double the concentration of nicotine.

614. In 1969, American researchers, along with researchers from Philip Morris, R.J. Reynolds, and Liggett, conducted experiments to determine if genetically different tobacco varieties differed "in their ratio of nicotine to FTC 'tar.'" Also in that same year, American test-marketed Lucky Strike cigarettes in which nicotine malate was added to increase their nicotine levels.

(g) CTR

615. In a January 22, 1977 CTR researcher Donald Ford described nicotine as a "habituating agent":

Further, the dependence which develops tobacco in humans (and withdrawal symptoms during the cessation of smoking) and the degree of tolerance to nicotine which occurs in certain animal paradigms strongly suggest that nicotine is a habituating agent.

616. At a November 2, 1978 Tobacco Advisory Council (the Tobacco Institute's European equivalent) research committee meeting, the subject of which was past, present, and future research, the role of nicotine as a subject of intensive future research was discussed: "It was important for the industry to continue work on the role of nicotine because this was the most fundamental constituent of their product." For more discussion on the Tobacco Advisory Council, see Section I. above.

617. From 1972 until 1980, Gary Huber conducted research, funded by Philip Morris, Liggett, Lorillard, R.J. Reynolds, and Brown & Williamson, into changes in human behavior as a result of lower and higher nicotine levels in cigarettes. His results showed that nicotine was a dependence-producing substance and that smokers "smoked for nicotine."

(4) Internal Documents and Statements Reveal That Defendants Concealed and Suppressed Evidence That Nicotine Is Addictive

618. Not only did Defendants' conduct and research reflect a sophisticated understanding of nicotine and its role in smoking addiction, but they also deliberately withheld such information from the general public. It is clear that Defendants attempted to withhold and did withhold from public dissemination, and from public health authorities, accurate information regarding the addictiveness of nicotine in cigarettes.

619. Defendants accomplished this through the suppression of their own critical and corroborative research findings and by fostering controversy about the scientific knowledge concerning nicotine and its addictive effects that was publicly available.

620. Defendants have offered a remarkable misrepresentation of the history of tobacco-dependence related research in that it would seem to imply that the scientific basis for understanding tobacco dependence was known for many decades, if not centuries, and that until recent years, organizations which considered the question appropriately concluded that the evidence was not sufficient to draw such conclusions.

621. In fact, Defendants themselves possessed, from their own experiences and research, non-public information that led them to conclude, long before public health bodies did, that the primary reason people keep smoking cigarettes is to obtain nicotine, which has addictive drug effects. Defendants intentionally withheld this data (including many of studies on the physiological effects of nicotine in animals and humans, and much of its research on the determinants of nicotine dosing in cigarettes) when there were major public efforts to review and synthesize all available information, such as Surgeon General's Reports or congressional investigations. Instead, they engaged in a public relations offensive, relying on a long-discarded

definition of addiction, to deny the consensus conclusion that smoking is addictive primarily because cigarettes effectively deliver nicotine.

622. Defendants publicly denied the addictiveness of smoking and nicotine's role therein, because they feared that public acknowledgment of what was so well documented and widely accepted internally would potentially expose them to governmental regulation and adverse liability judgments from addicted smokers. Defendants thus took steps to limit the nature and dissemination of nicotine-related research.

623. A September 9, 1980 Tobacco Institute internal memorandum revealed that the tobacco companies recognized the fact that if they publicly admitted that nicotine was addictive, they would undermine their litigation defense that a person's decision to smoke is a "free choice": "[T]he entire matter of addiction is the most potent weapon a prosecuting attorney could have in a lung cancer/cigarette case. We can't defend continued smoking as 'free choice' if the person was 'addicted.'"

624. The following are examples of documents that reveal the scope of Defendants' actions in limiting the nature and dissemination of nicotine-related research.

(a) Philip Morris

625. Discussing Philip Morris's research into the pharmacological effect, William Dunn wrote to Research & Development Vice President Helmus Wakeham on February 19, 1969: "[D]o we really want to tout cigarette smoke as a drug? It is, of course, but there are dangerous F.D.A. implications to having such a conceptualization go beyond these walls."

626. In a November 3, 1977 memorandum, Philip Morris's Principal Scientist William Dunn described its strategy of concealing unfavorable research results. Regarding a nicotine study to be undertaken by Scientist Carolyn Levy, Dunn stated, "If she is able to demonstrate, as

she anticipates, no withdrawal effects of nicotine, we will want to pursue this with some vigor. If, however, the results with nicotine are similar to those gotten with morphine and caffeine, we will want to bury it."

627. In a November 29, 1977 memorandum, Philip Morris researcher Thomas Osdene stated his concerns with the direction CTR was taking with its research into nicotine, saying that with "the progress that has been claimed, we are in the process of digging our own grave," adding that he feared that "the direction of the work being taken is totally detrimental to our position and undermines the public posture we have taken to outsiders."

628. In March 1980, Dunn produced an internal memorandum discussing Philip Morris research concerning the psychopharmacology of nicotine. The research was "aimed at understanding that specific action of nicotine which causes the smoker to repeatedly introduce nicotine into his body." The internal memorandum noted that it was "a highly vexatious topic" that company lawyers did not want to become public because nicotine's drug properties, if known, would support regulation of tobacco by the federal Food and Drug Administration ("FDA"). Consequently, the memorandum observed that while Philip Morris would continue its research program 'to study the drug nicotine, we must not be visible about it. . . . Our attorneys . . . will likely continue to insist on a clandestine effort in order to keep nicotine the drug in low profile."

629. In a December 4, 1981 article, George Macklin, Director of Sales for Philip Morris, UK summarized and published a presentation he had made to a Retail Confectioners and Tobacconists convention. In the article, he said that "cigarettes are not just habit forming – the body builds up a requirement for them," and that if it was raining, a smoker would still stop to buy cigarettes because "he is addicted to cigarettes." In response to an angry inquiry about this

public admission from Don Hotel of industry counsel Shook, Hardy & Bacon, Jules Hartog at Philip Morris Europe wrote that he had explained to Macklin's boss that "this sort of mistake could create a lot of problems for us" and that he had been promised that "such unfortunate incidents will not happen again" in the future.

630. A March 16, 1983 memorandum from researchers James Charles and Victor DeNoble concerning their critiques of the Public Health Service's Report titled "Why People Smoke," acknowledged that Philip Morris had research with implications contrary to Philip Morris's publicly stated opinions on nicotine, but that Philip Morris had not disseminated its findings publicly: "Recent experiments in Vic's [DeNoble's] project have shown that there is a behavioral component to tolerance (a learned phenomenon), but this work has not been published."

631. In at least one case, Philip Morris threatened to take legal action against scientists who sought to publish their research on addiction. Philip Morris had one of the first laboratories that demonstrated what would have been an important breakthrough – that rats press levers and work for nicotine. Such studies had earlier been done with monkeys, but there had not previously been a good rat model. Philip Morris was one of the first to develop a valid rat model of nicotine self-administration.

632. When testifying at the Waxman Hearings on April 28, 1994, DeNoble, no longer at Philip Morris, agreed that the self-administration rat model was a classical hallmark to indicate that a substance has abuse potential; and that the significance of his self-administration research, finding was, in part, because it was a rat model. Indeed, the Philip Morris DeNoble study predicted nicotine abuse potential with the exact same procedure that NIDA uses to demonstrate a drug's abuse potential.

633. DeNoble also testified that prior rat self-administration studies had a compounding variable of inducement that made interpretation of their results unclear with respect to whether nicotine is truly a reinforcing agent. Therefore, his own study succeeded where others had failed and clearly was very significant at this point in history. As DeNoble put it:

The work that we did with nicotine was clearly some years ahead of the external community, scientific community. It wasn't until 1989 that Bill Corgal (sp) demonstrated that nicotine would function as an intravenously delivered reinforcer for rats, using the same models that I used – that Paul [Mele] and I used. The work that we did on self administration, on dependence, on tolerance, on frustration, clearly would have moved the scientific community much further along than it had been moved by that work not getting out.

634. DeNoble's former research colleague at Philip Morris, Paul Mele, added these points:

. . . [S]ome of these studies were the first to be done with nicotine. I have no doubt that other people would have performed these studies subsequently just as has been done recently in Toronto. But they weren't being done at the time, and to quote a recent review article in *Science* . . . it basically took six or seven years for the nicotine self-administration model to be developed and come out. Whereas, it would have been out much earlier had this work been allowed to go out and stay out.

635. Philip Morris management clearly knew the scientific significance of the DeNoble rat self-administration nicotine study. In fact, approval was obtained to submit it to a leading peer review scientific journal, Psychopharmacology, and plans were in place to have the study presented at the 1983 American Psychological Association meeting in Anaheim.

636. Jack Henningfield, an addiction researcher at NIDA during the period that DeNoble and Mele were performing this research at Philip Morris, has testified as to the

significance such work would have had to the scientific and medical communities had it been published in 1983.

637. Prior to publication, however, at a New York briefing designed for the purpose of having DeNoble report on the activities of the behavioral pharmacology laboratory, including the results of the rat self-administration nicotine study, DeNoble was asked only one question by members of the Philip Morris corporate staff, "[B]asically, 'why should I risk a billion-dollar industry on rats pressing a lever to get nicotine?'"

638. In a July 27, 1983 letter to the head of Philip Morris, Patrick. Sirridge, an attorney with Shook, Hardy & Bacon, summarized the nicotine research being conducted by DeNoble and recommended its suppression.

639. After DeNoble submitted his study to the higher levels of management at Philip Morris, his laboratory was shut down and the animals killed.

640. Subsequently, DeNoble was told by several representatives of Philip Morris management that his lab was generating information that the company did not want generated internally. As DeNoble testified:

Apparently, at that same time, some litigation had come out, some law suits, and we were told that the data we were generating, the types of studies that we were doing would not be favorable in that litigation. . . . They just said that if the work were removed from the company connecting it back to the company would be, you know, more difficult to do than if it's being done right in the company itself.

641. In a September 10, 1986 letter, Philip Morris's general counsel threatened to sue DeNoble if he published any more findings on nicotine addiction, accusing DeNoble of disclosing "information relating to research on a project entitled 'Brain Sites Involved in the Mediation of Behavioral Effects of Intraventricularly Administered Nicotine.'"

(b) R.J. Reynolds

642. According to a May 24, 1977 memorandum titled "Research Department: Long Range Planning Phase I, a key goal of the R.J. Reynolds R&D department was to combat scientific literature unfavorable to smoking and to generate data favorable to smoking: "Protection against the claims of the professed enemies of the tobacco industry." It was hoped that if R.J. Reynolds took the offensive in presenting information favorable to both R.J. Reynolds and the industry as a whole, "the impact of the oft-repeated arguments of anti-tobacco forces may be partially offset."

643. An October 7, 1988 report titled "An Integrated Research Program for the Study of Nicotine and Its Analogues," drafted by R.J. Reynolds researchers, indicated that R.J. Reynolds was well aware of the importance of nicotine in cigarettes, as it promoted the development of an extensive in-house program for the detailed study of this chemical.

644.

[REDACTED]

[REDACTED]

645.

[REDACTED]

[REDACTED]

(c) American Tobacco

646. In a September 16, 1938 letter, H.R. Hammer of American's R & D department

informed George W. Hill, an American Vice President, that research performed on dogs had demonstrated an increase in blood pressure due to the cigarette's nicotine. Mr. Hammer added that while this was "very clear-cut biological evidence," "nothing of this sort could ever be used in presenting facts to the public."

647. In a May 14, 1969 memorandum, John Ashworth of American's R&D Department ordered that nicotine was to be referred to as "Compound W" in all "experimental work, reports, and memorandum, either for distribution within the Department or for outside distribution."

(d) BATCo

648. In an October 25, 1978 memorandum titled "Notes on BAT/ITL Joint Meeting," Ed Jacob, a longtime tobacco industry counsel, advised that there be "a total embargo on all work associated with the pharmacology of nicotine and the benefits conferred by smoking for three reasons," including "a pending California lawsuit which indicted nicotine as an addictive substance," and another lawsuit "against Califano [HHS Secretary] to show cause why tobacco should not be brought under the powers of the FDA."

649. At a February 16, 1983 meeting of tobacco company directors, attended by Manny Bourlas of Philip Morris, L.C.E.F. Blackman, a BATCo board member and former head of research, and representatives from several European tobacco companies, the participants discussed how to respond to the impending Independent Scientific Committee on Smoking and Health ("ISC") Report. The participants agreed upon several schemes for the tobacco industry to conceal scientific information and expertise from the government (and indeed, to respond to government requests by falsely stating that it had no relevant expertise), as well as to emphasize the imperative for the industry to avoid any studies of whether "nicotine either was, or was not, associated with perpetuating the smoking habit."

3. The effect of nicotine at the levels achieved through smoking. While animal experiments could probably be designed to study the effect [sic] of nicotine (either by itself or as 'spiked' additions) our response to the ISC should be that we have nothing to offer. The little information we have is already in the public domain, and we have no idea as to a worthwhile research programme.

...

5. The role of nicotine, at the relevant lower range of nicotine dosage, in perpetuating the smoking habit
While much information already exists in the literature (Russell, Ashton and Stepney etc) this is a particularly sensitive area for the industry.
If any future study showed that nicotine either was, or was not, associated with perpetuating the smoking habit, industry could well be called upon to reduce or eliminate nicotine from the product. (A heads we lose, tails we cannot win situation!)
We must not become involved in any collaborative study with the ISC. (emphases added).

(e) Brown & Williamson

650. In a July 3, 1963 letter to A.D. McCormick, counsel for BATCo, Brown & Williamson counsel and Senior Vice President Addison Yeaman, reported that W.T. Hoyt, the executive director of the TIRC, had agreed to withhold a Batelle report on nicotine from TIRC members or its scientific advisory board, and that also agreed that submitting the information to the Surgeon General was "undesirable."

651. In an August 16, 1984 memorandum to E.E. Kohnhorst, Brown & Williamson Senior Vice President and General Counsel Ernest Pepples advised against the company's use of the report titled "The Functional Significance of Smoking in Every Day Life" due to the report's apparent concession that "many potential criteria for addiction identification are met by smoking behavior," and its reference to smoking as "one form of 'drug usage', 'psychoactive substance usage', or 'psychoactive drug usage.'"

652. Soon after, in a August 28, 1994 letter, Pepples told Ray Pritchard, Deputy Chairman of BATCo, that Pritchard should have his legal counsel involved in the preparation of research related to the issue of nicotine's addictiveness. He also expressed concern about the report titled "The Functional Significance of Smoking In Everyday Life" because it appeared to concede that smoking is addictive.

(f) Lorillard

653. In a November 9, 1976 memorandum, Lorillard researcher R.E. Smith urged that an industry wide effort to offer a product with 50% less nicotine should be discontinued despite "considerable consumer trial appeal" because such a cigarette could not deliver sufficient "smoking satisfaction" (a euphemism for addiction) for its purchasers.

(g) CTR and Other Defendant Funded Research Groups

654. In a May 19, 1967 letter to Alexander Holtman, counsel for Philip Morris, William Shinn, counsel of Shook, Hardy & Bacon, discussed CTR's Special Projects, including one to support and publicize research advancing the theory that smoking is beneficial to smokers as a stress reducer, even for "coronary prone" persons, because stress, rather than nicotine addiction, is the cause of health problems in smokers.

655. For at least the time period of 1995-1997, presentations made to the Committee of Counsel intentionally excluded scientific presentations or any discussions about the health effects of smoking or nicotine and addiction. Instead, the presentations were simply used to formulate joint industry regulatory submissions.

656. When the Director of NIDA testified before Congress that nicotine met criteria as a dependence-producing drug in 1982, Defendants made statements and sent their own experts to testify that nicotine was more like hamburgers than an addictive drug.

657. An industry-funded June 13, 1988 report written by Gerald E. Wagner, Ph.D., titled "Health and Smoking Nicotine," rejected the findings of the Surgeon General's 1988 Report were rejected, in part because it claimed the addictive properties of nicotine could not be proven "scientifically."

658. In another report, dated July 25, 1988 and titled "Comments on the Report of the Surgeon General on Nicotine Addiction," Dr. Wagner again rejected the Surgeon General's findings, criticizing them in part as a "hypothesis based primarily on the subjective observations of smoking behavior" Nevertheless, Wagner noted that "nicotine would appear to meet the primary criteria for dependency established by the report: controlled use, psychoactive effects, and reinforced behavior."

659. When in 1995 FDA promulgated its proposed tobacco regulation that concluded that nicotine as delivered by cigarettes is addictive and that demonstrated that Defendants designed their products to ensure adequate nicotine delivery, Defendants responded in 1996 with massive submissions disputing the conclusion and instead claiming that "nicotine does not produce substantial pharmacological effects."

(5) Conclusions Concerning Defendants' Nicotine-Related Misconduct

660. I find that the above conduct, including Defendants' false, misleading, and deceptive statements as well as Defendants' concealment and suppression of information, was material to the decisions of smokers and prospective smokers, and influenced the decisions of person to initiate, continue, or quit smoking, as well as the decisions of others to initiate, forgo, or otherwise affect efforts to address smoking and health issues, thus increasing the number of cigarettes sold.

661. I find that but for Defendants' misconduct, fewer people would have begun to

smoke, and those who had begun but desired to quit would have realized that the task might involve professional and/or medical assistance. Knowledge that a product is highly addictive is a severe deterrent to consumption. The length of time in which, and the vigor with which, Defendants pursued their campaign of obfuscation, misrepresentation, and concealment leads this Court to the conclusion that the profitability of the misconduct was high.

C. Nicotine Manipulation

662. As set forth above in the Nicotine Addiction Section IV. B., Defendants knew that nicotine was and is a highly addictive substance, and that smoking is highly addictive.

663. Individually, jointly, and through third parties, Defendants have extensively studied smoking intake, inhalation studies, compensation, addiction physiology, smoker psychology, the pharmacological aspect of nicotine, threshold levels of nicotine delivery necessary to keep smokers addicted, the effects of nicotine on brain waves, nicotine titration, and similar matters.

664. Cigarette Company Defendants knowingly designed their cigarettes to make the cigarettes addictive through various methods. These efforts were for the purpose of ensuring optimal delivery of an active dose of nicotine sufficient to create and sustain addiction. Recognizing that nicotine was essential to keep smokers addicted, and to addict prospective smokers (including children and others who "experimented" with cigarettes), these Defendants intentionally designed their cigarettes to make them more inhalable and addictive to ensure that the cigarettes can deliver pharmacologically active doses of nicotine.

665. As a result of both components and design, cigarettes are extremely effective nicotine delivery devices that are engineered to easily provide smokers with rapidly delivered nicotine in a dose sufficient to create and sustain nicotine addiction. These features enhance the addicting and toxic effect of nicotine itself, and in addition facilitate the repetitive delivery of extremely toxic and carcinogenic chemicals.

666. As set forth below, Cigarette Company Defendants' designed their products to

control and manipulate nicotine delivery in order to create and sustain addiction. Nevertheless, Defendants have publicly denied they manipulate nicotine.

(1) Product Goals

(a) Increase Sales by Ensuring That Cigarettes Can Deliver a Dose of Nicotine Sufficient to Create and Sustain Addiction

667. Through years of research, the Cigarette Company Defendants sought to identify an "optimal" amount of nicotine: one that would meet consumers' demand for lower tar yield products (based on their perception – fueled by Defendants – that such cigarettes actually delivered less tar and thus might be potentially safer), while still providing an addiction creating and sustaining level of nicotine. This research was conducted with the knowledge that their continued profits depended on creating and maintaining a base of addicted consumers.

(i) Philip Morris

668. Philip Morris recognized the need to determine an acceptable minimal level of nicotine to deliver to smokers as early as 1961. Helmut Wakeham, then-Director of Research, wrote: "Even though nicotine is believed essential to cigarette acceptability, a reduction in level may be desirable for medical reasons How much nicotine reduction will be acceptable to the smoker?"

669. By 1964, Philip Morris was conducting research designed to determine the optimal level of nicotine and to determine which nicotine compound would best increase the smoke nicotine delivery of cigarettes.

670. Guided by this research, the optimal amount of nicotine delivery was discussed throughout the years. Although the amount might vary, the desire to control nicotine content did

not:

- In 1964: "nicotine delivery level should be 0.7 mg minimum."

- In 1975: "[a]pparently there is an optimal dose of nicotine; too little or too much is rejected by tobacco smokers.";

- In 1987: "a minimum amount of nicotine is needed for the smoker's satisfaction (0.8 mg/cig)" ("Satisfaction" is a code word the industry has long used to avoid saying "addiction" or "addictive qualities" or to otherwise refer to the psycho- and physiological reaction humans experience from inhaling nicotine.)

Never was there any indication the nicotine delivery amount would be limited by the amount occurring naturally in the tobacco leaf.

671. By 1990, Philip Morris researchers explained in an inter-office memo that the question of whether there was an optimal amount of nicotine to be delivered to the smoker had been answered by Philip Morris's Electrophysiological Studies research department. Listed among the various achievements of the group was the claim to have "shown that there are optimal cigarette nicotine deliveries for producing the most favorable physiological and behavioral responses."

(ii) R.J. Reynolds

672. By 1971, R.J. Reynolds was also searching for the optimal amount of nicotine to deliver to smokers.

673. In 1971, R.J. Reynolds's Assistant Director of Research, Claude Teague, wrote of the danger to the industry of providing too little nicotine to smokers. Teague expressed his

concern about the issue as one of profound and grave danger to R.J. Reynolds's ability to stay in business, writing "if we meekly accept the allegations of our critics and move toward reduction or elimination of nicotine in our products, then we shall eventually liquidate our business. If we intend to remain in business and our business is the manufacture and sale of dosage forms of nicotine, then at some point we must make a stand."

674. The "stand" Teague advocated was the delivery of an "attractive dosage" of nicotine. Teague wrote on April 14, 1972: "In a sense, the tobacco industry may be thought of as being a specialized, highly ritualized and stylized segment of the pharmaceutical industry. Tobacco products, uniquely, contain and deliver nicotine, a potent drug with a variety of physiological effects. . . . Nicotine is known to be a habit forming alkaloid, hence the confirmed user of tobacco products is primarily seeking the physiological "satisfaction" derived from nicotine and perhaps other active compounds. . . . Our Industry is then based upon design, manufacture, and sale of attractive dosage forms of nicotine. . . ." Later, Teague put a number to his theory, suggesting that "[n]icotine should be delivered at about 1.0-1.3 mg/cigarette, the minimum for confirmed smokers."

675. By 1976, R.J. Reynolds was aware that the inhalation of cigarette smoke was the most effective method of administering nicotine to smokers. The company also understood the absorption of nicotine in the mouth was pH dependent. Thus, the company emphasized research to determine the "minimum level of nicotine required for smoker satisfaction," and the particular chemical form of nicotine, i.e., whether "nicotine in smoke was 'free' or 'bound' or some mixture of these two forms."

676. From 1978 to 1984, R.J. Reynolds had a "nicotine optimization" program. During this time, potential optimum levels of nicotine were identified and circulated by and between company scientists. In 1978, the "optimum 'nicotine strength'" for Winston filters was identified near smoke pH 6.2-6.3 and at 0.12-0.13 mg/puff nicotine. In 1979, the "maximum satisfaction" for Winston King Size was believed to be delivered at 1.0 mg of nicotine per cigarette. In 1980, R.J. Reynolds reported data from a fuller-flavor low tar consumer satisfaction study. This data revealed there was both an "optimum and minimum nicotine level required to maximize smoking satisfaction. Camel Lights is in the optimum range. Merit 85 is just above the minimum."

677. R.J. Reynolds's efforts to identify an optimal amount of nicotine focused not only on its own products, but also involved evaluating the other manufacturers' brands. A 1980 competitive brand analysis found that Philip Morris's full-flavor brands were delivering close to 1.0 mg/cig. This amount approximated the "optimum nicotine level in that 'tar' range" indicated by R.J. Reynolds's own research studies.

678. By 1981, R.J. Reynolds believed that due to its various product improvement programs, the nicotine content in its full flavor brands was at or near the optimum level to allow for smoker satisfaction. R.J. Reynolds was aware that smokers would compensate by adjusting their smoking habits if the nicotine level in cigarettes was too low. They determined the level at which compensation was likely to occur was far below the optimum level of nicotine delivered in its full flavor cigarettes.

(iii) BATCo

679. BATCo recognized as early as 1959 that public health concerns could create consumer demand for lower yield cigarettes, a demand that presented the need for the company to determine an "optimum offer" of nicotine to deliver to smokers. In particular, BATCo recognized that reducing the nicotine per cigarette as much as possible to satisfy possible consumer demand "might end in destroying the nicotine habit in a large number of consumers and prevent it ever being acquired by new smokers."

680. By 1963, B&W and BATCo recognized they could design cigarettes to deliver optimum doses of nicotine. A 1963 letter from B&W to BATCo discussed "optimum levels" for nicotine and correlated the nicotine level in cigarettes with consumer acceptance. The letter recognized the nicotine level of B&W cigarettes was not obtained by "accident" and admitted that "even now . . . we can regulate, fairly precisely, the nicotine and sugar levels to almost any desired level management might require."

681. BATCo understood by 1976 that the trend in cigarettes would continue towards reduced tar and nicotine delivery products. BATCo recognized this trend could pose a threat to the industry: "There is a danger in the current trend of lower and lower cigarette deliveries-i.e. the smoker will be weaned away from the habit [I]f the nicotine delivery is reduced below a threshold 'satisfaction' level, then surely smokers will question more readily why they are indulging in an expensive habit." BATCo also recognized that there were methods of dealing with this trend, however. Recommended solutions varied from the political (insuring "every

opportunity is taken to separate tar and nicotine in the minds of consumers and legislators"), to product modifications, such as filters, that could be used to "take advantage of the opportunities."

682. In 1985, BATCo research circulated a report about research being conducted to determine how to "make smaller amounts of nicotine work harder."

683. Reports, memos, and other documents from BATCo throughout the 1970s and 80s reconfirm the company's understanding and goal to establish and deliver "the optimal levels of nicotine in smokers." For instance, in 1972, BATCo recognized that if a cigarette's nicotine level "is so low that the nicotine is below the threshold of pharmacological activity then it is possible that the smoking habit would be rejected by a large number of smokers." Considering this threshold "satisfaction" level, BATCo senior scientist S.J. Green warned that "we should be aware of the long-term dangers of following the crowd into ultra-low nicotine deliveries." Similarly, a June 1984 BATCo presentation discussed current and future product trends, needs and opportunities stating that: "[h]igh on the list of product requirements is an adequate level of nicotine to sustain the smoking habit. Smokers have a nicotine threshold below which it is ineffective."

684. On June 6-8, 1984, BATCo held a comprehensive conference on nicotine. Topics at the conference included "Nicotine Dose Requirements," "Nicotine Dose Estimation," and "Product modification for maximal nicotine effects." At this time, BATCo was seeking to alter the ratio of tar to nicotine delivery in order to deliver varying levels of nicotine while reducing tar levels. BATCo was also aware that, if nicotine delivery fell below a certain level (believed at that time to be 0.4 mg nicotine), the cigarette would fail to "satisfy" the smoker. In evaluating

the estimate dose of nicotine a smoker required daily, the company recognized that "[i]t is important for future product design to establish if an absolute requirement exists for a threshold level of nicotine." Finally, BATCo concluded the series with sessions on product modifications that could be made to produce optimal nicotine effects. The primary objectives of these sessions were to: (a) identify extent to which nicotine contributes to product satisfaction; (b) understand the "significance of [] different levels of nicotine interaction with the body to smoking behavior and product satisfaction"; and (c) identify a "research programme to meet the criteria for maximising nicotine effects to satisfy consumer needs from a minimum dose of nicotine."

(iv) Lorillard

685. Lorillard recognized the importance of finding the optimal nicotine dose by 1976, reporting: "[I]t seems that, within limits, smokers can and do control their nicotine intake from smoke by varying their smoking techniques. It would seem desirable to have a low tar cigarette with a nicotine content between the threshold and optimum doses level." A company scientist then thoroughly reviewed the existing scientific literature on the subject to determine the amount of the optimum nicotine dose.

686. In 1976, Lorillard internally recommended that an industry-wide effort to offer a product with 50% less nicotine be discontinued despite "considerable consumer trial appeal" because such a cigarette "could not deliver the smoking satisfaction to sustain consumer purchase." Company officials planned to share their decision with others involved in the project.

687. Like the other manufacturers, Lorillard's search for the optimum level of nicotine

delivery continued on through the years with subtle changes in amount and theory, but always the same goal: determine the amount of nicotine delivery necessary to sustain addiction.

[REDACTED]

(b) The Cigarette Company Defendants' Efforts to Deliver Addicting Levels of Nicotine Reflected Their Understanding of the Correlation Between Nicotine Delivery and Sales

688. Cigarette Company Defendants were aware that a cigarette's ability to deliver adequate levels of nicotine to smokers was critical to its commercial success.

689. Company documents establish that the Cigarette Company Defendants' intentional manipulation of nicotine and, specifically, the efforts to generate and deliver the "free-base" form of nicotine (discussed further below in section (2)(a)), reflected their commitment to ensure that smokers could obtain sufficient nicotine doses, whatever the reported FTC yield.

690. One 1973 R.J. Reynolds study found a direct, significant correlation between the amount of "free nicotine" in a brand and the sales levels of that brand. One summary explored the practical effects of these findings, concluding: "Our analysis suggests that pH does not correlate as closely with share performance as does free nicotine. Our emphasis should be directed toward free nicotine while pH would provide us with a measure of, or tool, to effect free nicotine."

691. R.J. Reynolds was aware of the impact proper nicotine delivery would have on

sales. R.J. Reynolds reported internally no later than 1982 that, shortly after Philip Morris began increasing smoke pH and free nicotine through the introduction of added ammonia in 1955, Philip Morris's sales began growing very rapidly.

692. In 1989, R.J. Reynolds examined "the doomsday scenario," i.e., "an acute deficiency of young adult smokers, apparently implying Marlboro's final domination." R.J. Reynolds had identified "a particularly disturbing difference" between Winston and Marlboro: "smaller puffs of Marlboro delivered higher levels of nicotine into the bloodstream, and delivered them more quickly than Winston." R.J. Reynolds concluded that this difference "could be a major factor in why people stay with a brand even though they don't know why."

693. B&W and BATCo recognized early on that delivery of nicotine would be tied to consumer acceptance. A 1963 letter from B&W's R. B. Griffith to BATCo's John Kirwan discussed how the level of nicotine and sugars might "... be varied to win consumer preference for our brands[,] and "the question of desirable or optimum levels for either nicotine or sugar or a balance of the two." Griffith implied that knowledge to the extent to which levels of nicotine and sugar can be varied could be gained from "a complete understanding of our crop survey system and the use of chemical analysis data in our crop buying program[,] and went on to state that "the level of B&W cigarettes given in the above table was not obtained by accident." Griffith closed by recognizing the marketing department's role in determining nicotine content in cigarettes, stating, "I think that we can say even now that we can regulate, fairly precisely, the nicotine and sugar levels to almost any desired level management might require," leaving the question of the determination of the nicotine and sugar level "to the marketing experts with no

further comment."

694. B&W also evaluated the effect of different smoke pH levels on consumer acceptance. A 1984 summary of tests on smoke pH concluded that increasing the smoke pH of certain brands could aid consumer acceptance of those brands.

695.

[REDACTED]

[REDACTED]

696. Lorillard achieved its objective swiftly. Former CEO Alexander Spears testified in a 1997 deposition that Lorillard was able to "manipulate the yield of nicotine" 40-fold per cigarette by 1974.

697. One of Lorillard's highest priorities in the late 1970s was its nicotine enrichment program. This program pursued the concept of nicotine enhancement to deliver the amount of nicotine "necessary to achieve long term use and satisfaction by the consumer."

(2) Product Design

698. Defendants, individually, and as a group, were aware of and discussed the role of the cigarette as a device to rapidly deliver nicotine, and invested considerable resources researching methods to achieve such delivery.

699. At a 1972 conference sponsored by the Council for Tobacco Research ("CTR"), an organization jointly funded and controlled by the cigarette manufacturers, Philip Morris

researcher William Dunn, Jr. characterized the cigarette as a nicotine delivery system. In a paper called "Motives and Incentives in Cigarette Smoking," Dunn wrote:

The majority of the conferees would go even further and accept the proposition that nicotine is the active constituent of cigarette smoke. Without nicotine, the argument goes, there would be no smoking. Some strong evidence can be marshaled to support this argument:

- 1) No one has ever become a cigarette smoker by smoking cigarettes without nicotine.
- 2) Most of the physiological responses to inhaled smoke have been shown to be nicotine-related.
- 3) Despite many low nicotine brand entries into the marketplace, none of them have captured a substantial segment of the market

The cigarette should be conceived not as a product but as a package. The product is nicotine. . . . Think of the cigarette pack as a storage container for a day's supply of nicotine. . . . Think of the cigarette as a dispenser for a unit dose of nicotine.

700. The Cigarette Company Defendants have done just what Dunn suggested. Each cigarette is engineered to enable smokers to obtain their optimal nicotine. Despite the fixed nicotine content in the unsmoked rod, the design of the cigarettes enables them to readily deliver nicotine over a wide range of doses so that those marketed most heavily can readily deliver the 1-3 mg of nicotine sought by smokers, regardless of the advertised or labeled delivery values.

701. A 1984 Philip Morris project had the objective of identifying the factors that selectively affect nicotine delivery in order to "develop effective techniques to control nicotine delivery." A further objective of this project was to determine smokers' subjective responses to nicotine from different sources.

702. Internal B&W documents, as early as 1963, evidence the company was attempting

to manipulate nicotine levels in cigarettes. A document written that year boasted that "the nicotine levels of B&W cigarettes [in a previous chart] was not obtained by accident . . . we have a research program in progress to obtain, by genetic means, any level of nicotine desired."

Testimony from B&W's former Director of Research in 1995 confirmed that B&W manipulates nicotine levels in tobacco products in many ways, including through the use of additives, filters, paper design, blending, and use of genetically modified tobacco.

(a) Design Cigarettes to Ensure Adequate Nicotine Delivery in All Cigarettes, Including Those Marketed as "Low Tar/Low Nicotine" Products

703. As the cigarette market increasingly shifted to products marketed as "low tar/low nicotine" cigarettes, the Cigarette Company Defendants undertook extensive efforts to manipulate the ratio of nicotine to tar in cigarettes in order to deliver more nicotine than might naturally be delivered by cigarettes with less FTC tar. These cigarettes were designed to exploit deficiencies in the FTC testing method (the method that determines the "official" tar and nicotine yields in cigarettes that companies report) and the phenomenon of smoker compensation in order to provide smokers with more nicotine than that listed on cigarette packaging.

(i) Modifying the Tar to Nicotine Ratio

704. The Cigarette Company Defendants sought to appear to responsive to public health concerns regarding tar and nicotine, without deviating from their internal commitment to provide the optimal level of nicotine to consumers. Thus, despite claiming publicly that "nicotine follows tar," the companies conducted years of research to develop methods of changing the ratio of tar to nicotine in tobacco smoke, in order to provide addiction creating and/or sustaining amounts of nicotine, while lowering levels of "tar."

705. Philip Morris. Philip Morris understood very early that a high nicotine-to-tar ratio would be important in formulating a successful cigarette strategy. In 1962, Hugh Cullman, Philip Morris's President, instructed Dr. Helmut Wakeham, Philip Morris's Vice President and Director of Research and Development, to evaluate R.J. Reynolds's processing methods. Cullman had determined that R.J. Reynolds's cigarettes were "significantly lower in T.P.M. [total particulate matter] for a given nicotine level than all other cigarettes tested, including those of Philip Morris." Cullman had concluded that R.J. Reynolds's method of controlling T.P.M. did not involve "any of the variables generally tested," was likely not "accomplished through leaf selection," but rather were most likely "the result of a method of tobacco processing, or the use of certain additives, not yet generally known to the rest of the industry." Thus, in light of his conclusion that a high nicotine-to-tar ratio would be important to the company's future, Cullman instructed Wakeham to research the issue further.

706. Philip Morris also conducted multiple consumer research studies to determine the acceptability of various tar-to-nicotine ratios. Studies conducted in the early and mid-1970s tested smokers' reactions to "low tar, high nicotine" cigarettes. These studies provided evidence that consumers preferred nicotine-to-tar ratios that were higher than those that occurred naturally in tobacco.

707. Philip Morris's also explored ways to mask the harsh taste of higher nicotine content cigarettes. In 1980, Philip Morris Principal Scientist W.L. Dunn advocated creating a cigarette with low tar and carbon monoxide values but high nicotine delivery. Dunn suggested "a quantum jump beyond the high alkaloid model recently tested . . . the task being to overcome the taste problem typically reported with such a preponderance of nicotine." Dunn followed with

another memo suggesting that they look into ways to mask the unpleasantness of cigarettes with high nicotine-to-tar ratios so that such cigarettes could be marketable.

708. R.J. Reynolds. R.J. Reynolds also sought to provide consumers with a cigarette with a high nicotine-to-tar ratio. R.J. Reynolds was researching a high nicotine/low tar cigarette in 1972 with the goal of being the first company to market this type of cigarette.

709. In 1987, R.J. Reynolds was attempting to create a product which would deliver the taste and satisfaction of a 7-9 mg. tar product with only 1-2 mg. tar. The satisfaction would be maintained through the use of "nicotine salts" technology, which would facilitate more effective nicotine delivery.

710. R.J. Reynolds attempted to alter the nicotine-to-tar ratio again in 1991. During that year, the company conducted research on technology that would allow them to create an Ultra Low Tar product that provided the amount of nicotine delivered in Full-Flavor products.

711. BATCo. The practical benefits of being able to provide seemingly smaller amounts of nicotine, while still providing an addiction-creating-and-sustaining quantity became clear to BATCo in the early 1960s as the Surgeon General's first report on smoking and health neared publication. BATCo had conducted research projects at Battelle Memorial Institute investigating the actions of nicotine as it related to the cigarette habit and examining the physical and psychological effects of nicotine. These studies were "HIPPO I", completed in January 1962, and "HIPPO II", completed May 1963. Prior to the publication of the 1964 Surgeon General's report, B&W General Counsel Addison Yeaman evaluated the findings of HIPPO I and II, and became aware of the impact the Surgeon General's report could have upon potential litigation. Yeaman discussed the conclusions of the two reports, concluding "nicotine is addictive. We are,

then, in the business of selling nicotine, an addictive drug effective in the release of stress mechanisms." In reaction to the pending claims of the Surgeon General's report, however, Yeaman suggested the best reaction to the report was to provide a filter capable of removing certain constituents of smoke considered suspect by public health officials, while still "delivering full flavor - and incidentally - a nice jolt of nicotine."

712. A progressive lowering in the ratio of tar to nicotine was advocated at BATCo during the late 1970s. It was recognized that this change would enable smokers "to satisfy their need for nicotine, while reducing their tar intake."

713. BATCo and B&W's research on manipulating the nicotine-to-tar ratio continued at least until the early 1990s. Various methods of nicotine manipulation are discussed in the companies' 1991 Fundamental Research Programme Review. The goal of the fundamental research programme was to produce "products which are superior to competition (particularly Philip Morris)." Projects identified to meet the goal of improving the smoke quality of the company's products included identifying and overcoming the "existing barriers to sensory acceptability" of low tar/high nicotine products. Another project, Greendot, was aimed at creating low tar-to-nicotine ratio products for which the company could achieve "both Marketing and Regulatory support."

714. BATCo's efforts to modify the nicotine-to-tar ratio also centered around the use of a genetically-engineered, increased nicotine content tobacco known as Y-1.

715. BATCo and B&W developed Y-1 at an experimental farm in North Carolina during the 1980s. The tobacco was genetically-engineered to have a nicotine content approximately twice the nicotine content of conventional tobacco. Seeds from the genetically-

engineered strain were used to grow artificially high nicotine tobacco in Brazil. This nicotine-enhanced tobacco was blended with other tobaccos in order to alter tar/nicotine ratios in commercial cigarettes sold in the United States.

716. B&W continued to use Y-1 tobacco products in various B&W cigarettes until as late as January 1994.

717. American. American Tobacco Company was also attempting to modify the nicotine-to-tar ratio. In 1969, American Tobacco Company researchers, possibly working with researchers from Philip Morris, R.J. Reynolds, and Liggett & Myers, conducted experiments "to determine if [genetically different tobacco] varieties differ in their ratio of nicotine to FTC 'tar.'" The study concluded that "there is only a limited opportunity to regulate the relative quantities of nicotine and FTC 'tar' genetically."

718. In a 1977 document, American's researchers "suggested" "methods for increasing the [nicotine to tar] ratio" ["NTR"]: "(1) Addition of nicotine to the tobacco"; (2) "addition of ammonia salts . . . to tobacco, which on smoking would free the ammonia and thereby cause an increase in nicotine transfer to the smoke"; (3) increasing "the porosity of cigarette paper"; (4) "adding a nicotine salt . . . to cigarette paper"; (5) "making cigarette filter tips basic [to] enhance the nicotine transfer in the smoke and [to] increase the NTR's. . . . Adding nicotine salts to the cigarette filter is also a means to increase the NTR"; and (6) "Adding salts that enhance the combustion of the tobacco" to offset the "reduction in the nicotine content" caused by reducing tar.

719. A 1980 American memorandum on "Increasing Nicotine Transfer in Smoke" stated: "There has been an interest in increasing the amount of nicotine that is transferred from

the tobacco to the mainstream smoke while leaving the 'tar' level unchanged. Since most nicotine in tobacco is a non-volatile salt, it was thought that a greater transfer would take place if the tobacco was made basic causing the nicotine to volatilize when the cigarette is smoked." To test this hypothesis, researchers conducted an experiment in which they added 2% or 5% potassium carbonate to American's Tareyton tobacco blend. Taste tests "suggested that more nicotine had transferred to the smoke, with the 5% being more harsh than the 2%."

720. Lorillard.

[REDACTED]

[REDACTED]

721. In 1976, Lorillard also investigated spraying free nicotine or nicotine tartrate onto cigarette tobaccos using various solvents to increase the nicotine-to-tar ratio in the cigarette smoke. The resulting taste impact would be similar to that of naturally occurring nicotine in regular production cigarettes.

722. A 1977 Lorillard research proposal offered as part of the nicotine enrichment project detailed plans for two new Lorillard products: First, a cigarette of 2 mg. tar having the taste level of a Kent Golden Light; second, a cigarette of 8 mg. tar having the taste of a Marlboro. The proposal included detailed plans to engineer the cigarettes to offer pre-determined amounts of nicotine.

723. In 1982, Lorillard experimented with adding bases to tobacco to enhance migration of nicotine and alter nicotine-to-tar ratios.

724. Liggett. Liggett also had projects to alter the ratio of nicotine to tar. In 1970, Liggett changed the tobacco blends of at least six brands which resulted in an increased ratio of

nicotine to tar in those brands.

725.

[REDACTED]

[REDACTED]

726. In 1978, Liggett researched creating cigarettes with Elevated Nicotine." As part of this research, Liggett created test cigarettes using the additive nicotine malate to alter the nicotine-to-tar ratio.

(ii) Providing More Nicotine Than That Listed on the Packaging and in Advertising

727. The Cigarette Company Defendants also attempted to create products that would measure on the FTC test as having low yields of nicotine, but that, when smoked, would actually yield nicotine amounts above and beyond that amounts reported on cigarette packaging or in advertising. Through the use of product design, and by capitalizing on smokers' own ability to change their smoking habits to self-administer greater doses of nicotine, the Cigarette Manufacturing Defendants continue to deliver addiction creating and sustaining doses of nicotine, even in the products advertised and listed as having the lowest nicotine content.

728. FTC Method. Tar and nicotine ratings are the numbers provided on cigarette packaging and in cigarette advertising that disclose the amount of tar and nicotine measured in cigarette smoke. These ratings are determined through the use of a device known as the FTC smoking machine. The FTC smoking machine is programmed to smoke in a certain way. It is calibrated to smoke at a specified rate for a specified period, and to stop smoking three millimeters out from the filter overwrap, which is added paper material the tobacco

manufacturers put past the end of the filter to connect the filter to the tobacco rod.

729. For human smokers, the actual amount of tobacco, the nicotine content, and the smoke-producing potential of a "light" cigarette and its corresponding "regular" or "full flavor" version are generally similar even though their machine-determined tar and nicotine ratings can be very different. The primary means by which the differences are achieved is through the use of physical design characteristics and ingredients which can be used to manipulate the amount of smoke delivered to a machine, while leaving the human smoker free to obtain substantially higher levels.

730. The tobacco industry is aware of the FTC smoking machine's limitations and has designed products to exploit these limitations.

731. For instance, as discussed above, many cigarettes contain a small area between the filter and the tobacco rod – the filter overwrap – that contains tobacco. Because it does not smoke to the filter, the FTC smoking machine does not smoke all of this tobacco. Thus, there is tobacco in the cigarette rod that the smoking machine does not measure but that can still be smoked by smokers. This tobacco can provide several puffs worth of smoke which is more concentrated in its delivery of nicotine and tar. It is more highly concentrated because it is closest to the filter – and thus not filtered by the other tobacco – and because it is smoked last, when the filter's effectiveness is decreased from previous smoking. The industry has long been aware that if a person simply takes a couple of extra puffs beyond the point on the cigarette where the FTC smoking machine stops smoking, the person would likely get a much higher load of tar and nicotine than the amount measured by the FTC test.

732. Other physical design features used to reduce the tar and nicotine measured by the

machine include the use of burn accelerants which burn a higher proportion of tobacco in between the puffs of the machine as compared to generally much more rapidly puffing humans. The FTC test does not account for the fact cigarettes are engineered to burn at different rates in the testing machine, in part to achieve different tar and nicotine yields on the test. Another feature is the use of ventilation holes that can be easily covered by the smoker's lips or fingers but are never covered by the machine's holders.

733. The Cigarette Company Defendants did not disclose to the FTC that they had data that could have helped the FTC change the smoking machine so that it would provide a more valid comparative estimate of the maximum amount of tar and nicotine that a smoker might reasonably expect to achieve. To the contrary, the Cigarette Company Defendants' internal documents reveal they took advantage of this flawed machine testing process and designed their cigarettes to increase the flexibility of their tar and nicotine dosing capacity to smokers even as they reduced the tar and nicotine yields as determined by machine tests.

734. Compensation. In addition to modifying their products to provide nicotine above and beyond that measured by the FTC test, the industry is also aware that cigarette smokers may compensate for lower amounts of nicotine by modifying their smoking behavior to achieve the necessary nicotine intake. This phenomenon is known as compensation. Smokers may compensate for lower nicotine delivery by taking puffs that are larger, more frequent, more rapid, or by inhaling more deeply. They may also compensate by consciously or subconsciously blocking ventilation holes with their fingers or lips, or they may smoke more cigarettes per day.

735. The Cigarette Company Defendants were aware of smoker compensation as early as 1961. Accordingly, they modified their products to encourage – and to increase the means and

modes of – smoker compensation.

736. Philip Morris was aware of the phenomenon of compensation by 1961. By 1969, the company had completed a study of smokers to determine whether a smoker modified his or her smoking intake based on the strength of a cigarette. Based on the study, the company concluded smokers modified their smoking habits to maintain preferred nicotine intake levels.

737. R.J. Reynolds was aware no later than 1972 that smokers subconsciously adjusted their puff volume to obtain "his per hour and per day requirement for nicotine."

738. BATCo's strategy to create a market for lower yield products was evident in a 1976 research paper recognizing smoker compensation. Aside from concluding that smokers "compensate for changed delivery in an attempt to equalise nicotine delivery," the paper also reported that "[s]mokers must be aware of the constant barrage of publicity advising them that smoking can be injurious to their health, but the majority of them choose to continue There must, therefore, be a reward . . . the smoker considers outweighs the financial and possible health consequences."

739. BATCo was aware by 1984 that smokers would smoke reduced nicotine products more intensely or increase the number of lower nicotine cigarettes smoked.

740. B&W personnel outside the research department were well aware of smoker compensation. In a 1976 internal memo, B&W Vice President and General Counsel Ernest Pepples recognized that "in most cases . . . the smoker of a filtered cigarette was getting as much or more nicotine as he would have gotten from a regular cigarette," and a 1977 marketing study noted that "[c]igarette consumption, as reported in a 1976 Consumption Study, increases as nicotine (satisfaction per cigarette) decreases."

741. Similarly, Lorillard research confirmed no later than 1976 that smokers regulated their smoking habits through various compensation methods, including changing brands of cigarettes, altering their puff volume, and altering the number of puffs they took from each cigarette.

742. Several Liggett and Vector Tobacco (Liggett's corporate affiliate) scientists and executives admitted in sworn testimony in 2002 that they were aware of compensation and the flaws in the FTC method. Notwithstanding this knowledge, the company still uses product design methods which result in nicotine amounts greater than those indicated in its FTC disclosures. This continued use of features that induce misleading FTC yields comes despite Liggett's corporate affiliate's stated ability to produce cigarettes whose true yields are substantially closer to those measured by the FTC and other smoking machine tests.

743. The Cigarette Company Defendants also communicated with one another about smoker compensation.

744. In May of 1968, the research heads of Philip Morris, R.J. Reynolds, Brown & Williamson, and Liggett attended a meeting at Liggett to discuss the FTC Method. Minutes from the meeting demonstrate that these defendants knew that an "individual smoker's smoking behavior pattern," which included changes in smoking behavior such as smoker compensation, was the "principal determinate of exposure" to the harmful substances in tobacco smoke.

745. B&W and BATCo had discussed smoking compensation by 1974. During a 1974 conference, the companies concluded that smokers would adjust their smoking patterns to deliver their own "nicotine requirements."

746. In April 1982, BATCo's G.O. Brooks sent a letter to B&W's W.L. Telling asking

that Telling send a report on a Smoker Compensation Study that examined how a cigarette smoker's method of smoking alters tar and nicotine delivery, and enclosed a paper summarizing the report. According to the letter, the study concluded that if a cigarette's nicotine level "is so low that the nicotine is below the threshold of pharmacological activity then it is possible that the smoking habit would be rejected by a large number of smokers."

(b) Other Product Design Methods Affecting Nicotine Delivery

747. Nicotine in cigarettes is also controlled and manipulated through selective leaf blending. Through leaf blending, or a combination of blending and additives, the industry can control the amount of nicotine delivered to the smoker.

748. Former Philip Morris and B&W employees have sworn under oath that those companies used selective leaf blending to manipulate and control the nicotine content of its cigarette products.

749. American Tobacco Company actively studied blending as a method of increasing the nicotine yield in its low tar cigarettes. American researchers investigated the effect of increasing the burley tobacco in its Lucky Strike tobacco blend in 1963 as part of their low tar cigarette studies. The objective of the research "was to determine the effect of increasing the Burley Tobacco in a blend on the yield of nicotine." In 1968, American's researchers prepared four lots of Lucky Strike tobacco blend, and directed that twenty-five cartons of cigarettes be made from each lot. All four lots were "made up with a leaf blend to increase the nicotine level of this cigarette." And, in 1974, American Executive Vice President J.B. McCarthy requested that the research and development department outline the company's "current knowledge regarding increasing the nicotine content of reconstituted tobacco." In a four-page memorandum,

researchers discussed: (1) adding "compound W" – the code word for nicotine that American adopted in 1969 – to reconstituted tobacco; (2) replacing "the lower nicotine-containing leaf components such as Turkish . . . with high nicotine tobacco such as Malawi sun-cured scrap (5% nicotine)"; (3) keeping tobacco stem from being put into reconstituted tobacco "so that the reduction of the nicotine content of the ingoing components is decreased"; and (4) "increasing nicotine transfer to the smoke [by] dilution and/or additives to the filter."

750. The Cigarette Company Defendants researched and designed filters that effect nicotine delivery. As industry researchers explored potentially effective filters for tars, they well understood that if nicotine delivery was affected it could reduce the addictive properties of their product.

751. The Cigarette Company Defendants have engineered cigarette filters to allow a sufficient dose of the drug to get to the lungs quickly. A cigarette filter has the potential to reduce nicotine transfer into the human body. However, the effectiveness of a filter with respect to any particular substance depends upon what the filter is intended to screen, the design of the filter, and the size of particles attempted to pass through it. Cigarette filters as designed and manufactured do not eliminate nicotine transfer into the body. Instead, the tobacco manufacturers have engineered filters so that they can increase or decrease the amount of nicotine that comes out of the cigarette and into the lungs.

752. In addition, in the 1950s, when filters were put on cigarettes with much greater prevalence, many in the health community believed that the filters trapped some of the suspected toxins being ingested by smokers. However, modern filter technologies utilized by tobacco companies can selectively trap certain substances but not others, such as by varying the type and

density of the filter materials. In addition, the tobacco manufacturers also use filters to control the particle size that enters the body. If the particles are too big or too small, they cannot efficiently get into smokers' lungs. Physiologically, such particles cannot efficiently get into the deep alveoli of the lung regardless of how hard you suck or smoke a cigarette. The importance of particles getting deep into the lungs is that, as with most addictive drugs in general, the faster the particles are delivered, the stronger their effect. The fastest way to get the drug to the brain is through the lung. Therefore, if the tobacco manufacturers wanted their cigarettes to have a quick effect, they needed to find a way to get the drug deep into the airways where it can be almost instantly absorbed like oxygen. The tobacco industry recognized as early as the 1950s that since particles that were too big or too small were not readily deposited in the lung, controlling particle size would be one method to reduce cigarette toxicity, *i.e.*, to engineer the particles so they do not stick in the lung. To this end, industry scientists devised ways to deliver absorbable particles of nicotine.

753. The Cigarette Company Defendants have also used paper selection, perforation, and placement of ventilation holes as methods to increase delivery of nicotine to smokers.

754. The paper used for cigars and hand-rolled cigarettes does not burn well and evenly, and it often self-extinguishes. Cigarette paper used on manufactured cigarettes is different. It is treated both with chemicals that can affect nicotine delivery and with burn accelerant chemicals that make the cigarettes burn hotter and faster so as to deliver less tar and nicotine to FTC smoking machines – which puff much less frequently than most people – than they do to people.

755. Cigarette paper is also of controlled porosity. Controlling the porosity is another

means of controlling the composition and amount of smoke by altering the mix of gases, temperature of the burning tobacco, and the speed at which the cigarette is burned.

756. Ventilation holes are small perforations in cigarette filters. These holes dilute smoke with air during FTC testing. Because of the general lack of visibility of the ventilation holes, however, smokers generally do not even know they exist, or if they see them, there is no information on the package to explain their function. Nevertheless, the industry blames smokers for compensating and for covering the ventilation holes. There are several ways cigarette manufacturers could have designed their products to avoid ventilation problems, thereby preventing excess particles from getting to the smokers' lungs. Such options range from very simple to very sophisticated. For example, one of the simplest ways would be for tobacco manufacturers to place the ventilation holes where the lips and hands are less likely to cover them accidentally. If smokers are not able to block the holes, they will inhale less tar and nicotine into their lungs. But the cigarette manufacturers have not done this.

(c) Smoke pH and Ammonia

757. The Cigarette Company Defendants have studied and utilized ammonia and other additives to manipulate the form of nicotine delivered in cigarette smoke.

758. Cigarette design methods employed by the Cigarette Company Defendants to influence and control nicotine delivery include, but are not limited to, the use of ammonia, the use of ventilation holes, filter design, the use of nicotine-rich tobacco blends, the use of chemical additives, selective leaf blending, and the use of reconstituted tobacco. These methods allow the Cigarette Company Defendants to control the amount of nicotine available for delivery to the smoker.

759. Taken together, these component modifications optimize the pH level of cigarette smoke (which affects the ratio of free-base to bound nicotine in the smoke), the size of the inspired particles, the sensory effects of the inspired particles, and many other features of modern cigarettes.

760. The acidity or alkalinity (as measured by pH) of tobacco smoke affects the rate and amount of delivery and absorption of nicotine over time. The breadth of the Cigarette Company Defendants' research on this topic confirms that the industry is well aware of this scientific fact. Industry documents report that when smoke is made more basic – i.e., the pH is increased – also increased is the percentage of "free" nicotine – that is, the nicotine molecules that are not electrically charged and are thus more rapidly absorbed, making the nicotine more rapidly transferable across membranes. The pH level affects the amount of nicotine that can be readily released from the tobacco rod of a cigarette and, in turn, readily absorbed into the body of the cigarette smoker. Molecule for molecule, the addictiveness of nicotine is not changed; rather, the pH of the tobacco and/or cigarette smoke is an important determinant of how many molecules of nicotine will get into the blood stream of a person exposed to nicotine by smoking or other forms of tobacco use.

761. Internal research studies conducted by the tobacco manufacturers reflect that there have been studies where the pH of cigarettes has been intentionally manipulated. Data tables presented by the tobacco industry showed the increased fraction of nicotine as a function of the pH of those cigarettes. These documents show a variety of ways of affecting pH by altering the pH of the tobacco material, the paper, wrapping material, the additives, or the filter material. All five of these methods of manipulating pH have been used. Thereafter, cigarettes were tested not

only for their nicotine delivery, but also for their taste. In one case, one of the tobacco companies had developed cigarettes that had a higher fraction of free nicotine by means of the pH manipulation, but the taste was unacceptable because too much nicotine is unpalatably harsh.

762. As the pH rises, the tobacco smoke becomes more "basic" and results in an increase in the amount of "free" nicotine, also known as "free base" nicotine (as opposed to "bound" nicotine).

763. Free nicotine is more volatile and physiologically active than bound nicotine. As one R.J. Reynolds document explained: "In essence, a cigarette is a system for delivery of nicotine to the smoker in attractive, useful form. At 'normal' smoke pH, at or below about 6.0, essentially all of the smoke nicotine is chemically combined with acidic substances, hence is non-volatile and relatively slowly absorbed by the smoker. As the smoke pH increases above about 6.0, an increasing proportion of the total smoke nicotine occurs in 'free' form, which is volatile, rapidly absorbed by the smoker, and believed to be instantly perceived as nicotine 'kick!'"

764. Increasing the pH by a few percent can double, triple, or quadruple the amount of free nicotine. Therefore, by increasing the pH on a small scale (e.g., from 0% unprotonated to 2% or 4%), a significant increase results.

765. Industry scientists suggest that pH has not increased over the years. Yet the smoke pH of lower tar cigarettes, or cigarettes with higher nicotine-to-tar ratios, has increased. The pH of Now cigarette in one year shortly after its introduction was as high as 6.7. The use of pH enhancements was one of the tools used to increase nicotine impact in low tar cigarettes that began to be introduced in the late 1960s and throughout the 1970s.

766. Before the Cigarette Company Defendants started using additional ammonia in their products, the pH for cigarette smoke was much lower. Indeed, the pH of cigarette smoke has risen steadily since the late 1960s. One industry report clearly shows that pH at that time was an order of magnitude (about 1 pH unit) lower than the cigarettes tested by the Massachusetts Department of Health recently. The pH increases were associated with the introduction of the new "lower tar, lower nicotine" brands.

767. One 1973 R.J. Reynolds research and marketing document provides a good overview of the myriad ways that the industry had found to manipulate the pharmacological effect, and hence the addictiveness, of nicotine, by modifying the pH of cigarette smoke. By this time, R.J. Reynolds was attempting to compete more effectively with Philip Morris's Marlboro by increasing the nicotine "kick" of its cigarettes. As explained in a document discussing the research: "Methods which may be used to increase smoke pH and/or nicotine "kick" include: (1) increasing the amount of (strong) burley in the blend, (2) reduction of casing sugar used on the burley and/or blend, (3) use of alkaline additives, usually ammonia compounds, to the blend, (4) addition of nicotine to the blend, (5) removal of acids from the blend, (6) special filter systems to remove acids from or add alkaline materials to the smoke, and (7) use of high air dilution filter systems. Methods 1-3, in combination, represent the Philip Morris approach, and are under active investigation."

768. As indicated in the R.J. Reynolds document, ammonia-based compounds (which are alkaloids, and thus raise the pH level) are one of the many means of manipulating pH and the nicotine dosing characteristics of cigarettes. Ammonia compounds convert bound nicotine to free nicotine. This transformation facilitates consumer use of cigarettes for pharmacological purposes

by: (1) increasing the amount of nicotine that is transferred from the tobacco to the smoke; (2) increasing the absorption of nicotine in the mouth; and (3) possibly increasing the speed of nicotine transfer to the brain.

769. While ammonia, raises the pH level, the pH is not as important as the way ammonia actually works. When ammonia is released during combustion, it sweeps along the remaining tobacco, which has been moistened by water of combustion replacing nicotine and causing the nicotine to be released in gas phase from the tobacco. Research as early as 1975 showed that gas phase nicotine can account for 12% or more of the nicotine delivered to the mainstream in cigarettes. FTC testing devices do not detect gas phase nicotine. Thus, the ammonia treatment leads to lower nicotine level reported than those actually received by a smoker.

770. Furthermore, studies on ammonia do not accurately report the amount of ammonia present, as they do not also consider (and the researcher may not even know) the blend composition of the products or the additives used. These factors are important because the amount of ammonia reported as an ingredient does not include products that decompose to ammonia upon burning, such as diammonium phosphate and ammonium salts including urea, amino acids, and polypeptides.

771. Cigarette Company Defendants researched ammonia and the pH of cigarette smoke as part of their efforts to ensure the delivery of nicotine levels sufficient to create and sustain addiction. In fact, the need to precisely control nicotine levels was recognized in industry documents: "[T]his process also permits us to partially or completely compensate for the variability in the nicotine content of tobacco from year to year, market to market, etc." The

industry began studying ammonia technology as early as the 1950s when Claude Teague of R.J. Reynolds investigated the ammoniation of tobacco. A comprehensive R&D effort in the 1970s reached the following conclusion (among others): "Studies of the effect of ammonia in smoke composition showed . . . an increase in the levels of . . . minor alkaloids. Smoking panel results showed a decrease in smoke irritation and harshness and an increase in physiological satisfaction with increasing ammonia content."

772. The use of ammonia to enhance nicotine production is spelled out in industry patents and research documents. An analysis of nicotine-to-tar ratios versus total ammonia compounds in filler to tar ratios show a clear effect for increased nicotine. Although Defendants have, in the past, cited the Surgeon General's report to support their claim that there is "virtually" no "free" nicotine in mainstream cigarette smoke, the test referred to only measured nicotine collected on the collection pad of the measuring device; it did not measure gas phase nicotine. Gas phase nicotine is virtually all in the "free" state.

773. Ammonia compounds are among the top additives by volume in the industry. A B&W document concluded: "RJR alone has ammonia emissions of 900,000 lbs./year in North Carolina," "the U.S. industry uses about ten million pounds of ammonia compounds a year," and industry ammonia usage "corresponds to about 10 mg. of ammonia compounds per cigarette produced."

774. By 1993, all the Cigarette Company Defendants used some form of ammonia technology in some cigarette products.

(i) Philip Morris

775. Philip Morris appears to have been the first tobacco manufacturer to use the

ammonia process in the United States, beginning in 1964 or 1965, on the heels of the first Surgeon General's report. At the time, Philip Morris ranked far behind Reynolds in domestic cigarette sales. Internal R.J. Reynolds research speculated that Philip Morris introduced ammonia into certain cigarettes as early as 1955. Shortly after the introduction of ammonia processes into their products, Philip Morris's sales began to grow rapidly.

776. Philip Morris's research on smoke pH continued on past its use of ammonia. By 1970, Philip Morris had developed a method for determining the pH of whole smoke on a puff-by-puff basis. By 1990, a study was designed to produce low delivery cigarettes with more nicotine impact. This study theorized that modifying smoke pH would result in more free nicotine which would then, based on the company's previous findings, be perceived as having a greater nicotine impact. Researchers hypothesized that this cigarette "would be analytically similar to other cigarettes at comparable nicotine deliveries, but would be judged to have much more impact."

777. Philip Morris also had offshore research conducted on smoke pH in 1994 in order to evaluate FDA Commissioner Dr. Kessler's statements about smoke pH during the Waxman hearings. See Section IV.B. for further discussion of the Waxman hearings. This research confirmed that higher smoke pH leads to quicker delivery of nicotine into the bloodstream.

(ii) R.J. Reynolds

778. R.J. Reynolds has conducted multiple studies regarding the impact of smoke pH on nicotine delivery, and on market share.

779. In 1973, R.J. Reynolds conducted an extensive study of the design of Philip Morris Marlboro cigarettes in attempt to discover the reason for its competitor's sharp increase in

sales. R.J. Reynolds discovered that the pH of Marlboro was consistently and significantly higher than Reynolds' brand and, accordingly, Marlboro contained more free nicotine and "would be expected to show more instantaneous nicotine 'kick' than our brands." The amount of free nicotine in Marlboro was found to be almost three times that found in the smoke of Reynolds's Winston brand. Reynolds also concluded that other popular brands – for example B&W's Kool – also had an increased smoke pH and increased amounts of "free nicotine." Reynolds concluded that the high smoke pH attained by Philip Morris and B&W was "deliberate and controlled." Reynolds also found, using mathematical regression models, that the amount of free nicotine in a particular brand correlated positively to that brand's market share.

780. Another 1973 R.J. Reynolds study illustrated the discrepancies between FTC tar and nicotine data and actual cigarette strength. This study found that the smoke pH for the Marlboro and Kool cigarettes had been steadily increasing since 1964, while the pH for R.J. Reynolds's products had remained almost constant. At the same time, the FTC tar and nicotine had decreased for all the brands. These studies suggested that the strength of a cigarette could be controlled in part by adjustment of smoke pH. The researchers concluded doing so would be extremely important to the successful performance of R.J. Reynolds's cigarettes.

781. Reynolds soon moved its cigarette design in the same direction as Philip Morris. In 1973, Reynolds discussed using pH manipulation "to assure RJR a larger segment of the youth market." By 1974, Reynolds had "introduced ammoniated sheet filler in the Camel filter cigarette Better market performance was indicated in the subsequent years."

782. R.J. Reynolds was using an ammonia process no later than 1978. Though the company believed that its process was not as effective as Philip Morris's in controlling pH, the

company used the process because, among other reasons, it was believed to increase the effect of nicotine.

783. Another R.J. Reynolds document exhibits how the Cigarette Company Defendants attempted to keep abreast of each other's understandings regarding the effect of smoke pH. In June 1988, an R.J. Reynolds researcher circulated a B&W report which concluded that smoke pH was related to the speed of delivery of nicotine into the bloodstream.

(iii) B&W/BATCo

784. BATCo and B&W understood that "free base nicotine is the most chemically and physiologically active form because it is most rapidly absorbed."

785. Internal BATCo documents reveal the company was aware of the possibility of varying nicotine delivery by using additives and other methods to affect absorption rate. A draft letter written in 1964 on the subject set forth BATCo's theory that "the rate of absorption or transfer of nicotine base to the blood stream is more rapid than [nicotine] salt." Based on this and related findings, the author of the draft letter concluded that "since the process of absorption of nicotine from smoke is via the saliva to the blood stream, I would think that there must be at least quantitative differences in the physiological response when the ratio of nicotine base to salt in the smoke is increased."

786. In 1964, a BATCo researcher recognized adding potassium carbonate (a base) to tobacco recognized the effect adding a base could have on pH and, as a result, on the nicotine "kick" a smoker would receive. "There seems no doubt that the 'kick' of a cigarette is due to the concentration of nicotine in the blood-stream which . . . is a product of the quantity of nicotine in the smoke and the speed of transfer of that nicotine from the smoke to the blood-stream." The

researcher went on to conclude that "it is almost certain that the free nicotine base is absorbed faster into the blood stream. Thus [the] effect of this potassium carbonate treatment, even though it does reduce the total quantity of nicotine in the smoke, may be to enhance the effect of what is left until it is equal or may be greater in psychological effect than the original smoke."

787. BATCo recognized during work on its Project Ariel that an important aspect of the research was work on the nicotine aerosol. While trying to create a less-hazardous smoking product, the company's "main objective [was] to achieve the physiological response of normal cigarettes." Scientists working on the project began to theorize as early as 1964 that this effect may be a function of either "nicotine being present as a free base or at least partly in vapour form."

788. In 1965, a BATCo research report noted the main effect of "treatment of flue-cured tobacco with ammonia" would be a 30% increase in delivery of nicotine.

789. The Cigarette Company Defendants were aware of other chemicals that could affect the pH, and nicotine level, in smoke. In 1970, B&W Research wrote about the effects of urea on pH and nicotine. At this time, tobacco treated with urea and a urea enzyme system was reported to have achieved increases in extractable nicotine levels as great as 80%. Further, the tobacco's pH was reported to be elevated as high as 7.5.

790. A 1991 B&W handbook regarding cigarette design provided ammonia technology information "for the product developer who is looking for ways to incorporate ammonia technology (AT) in a cigarette design." The undated handbook describes how B&W uses ammonia technology to "increase smoke nicotine efficiency" and listed five types of AT "currently used in production."

791. Like R.J. Reynolds, B&W analyzed and evaluated Philip Morris's use of ammonia and other methods to affect nicotine transfer. In 1984, a B&W researcher drafted a report on "The Unique Differences of Philip Morris Cigarette Brands" describing the way that achieves "lower blend alkaloids than competition brands, yet deliver[s] the same smoke nicotine" while using cheaper grades of tobacco. The researcher noted "[a]mmonia treatments appear to be the most important aspect of Philip Morris's blend uniqueness" because "[t]hey somehow force much of it to react with tobacco constituents in a manner such that pectin is released, while also forming sugar-ammonia reaction products that contribute to a mild and natural tasting smoke . . . favorable to nicotine transfer." Based on the review of Philip Morris patents, reverse-engineering of Philip Morris cigarettes, and other research, the researcher concluded that "ammonia is the major factor leading to the unique characteristics of PM brands."

792. In 1984, B&W studied the effects of varying the smoke pH of Kool cigarettes. The results of B&W's study indicated that increasing the smoke pH of Kool KS would aid with consumer acceptance of the cigarette.

793. Former B&W Director of Research Jeffrey S. Wigand testified that B&W uses ammonia technology as a method of managing or manipulating nicotine by converting bound nicotine to free nicotine. Wigand also testified about a Leaf Blender's Manual which he helped to edit. The manual was a "comprehensive document [] deal[ing] with the use of ammonia and ammonia compounds to effectively convert, equilibrate, and change nicotine from sol [salt] into a free base."

(iv) Lorillard

794. Lorillard was also studying ways to alter the pH of its cigarette products. In 1973,

Lorillard sought to improve the smoking quality of its reconstituted tobacco. Lorillard believed its research at that time demonstrated that the amount of free nicotine contained in mainstream smoke increased with higher pH, subsequently imparting increased impact. Lorillard also studied how the Marlboro reconstituted leaf achieved a higher pH, while still maintaining a good flavor. Using different additives, types of leaf, and added nicotine, Lorillard tested numerous ways to increase the smoke pH in its reconstituted leaf.

795. By 1976, Lorillard believed there was a connection between smoke pH and nicotine delivery. A 1976 document regarding the company's Nicotine Augmentation Project reported: "[t]he market leaders appear to have the higher pH's, and hence the higher concentration of free base nicotine. If the desired goal is defined to be increased nicotine yield in the delivered smoke . . . increase the pH, which increases the 'apparent' nicotine content without changing the absolute amount."

796. Lorillard also studied filtration and pH systems in 1976 as other potential methods to enhance nicotine. Lorillard found that free nicotine could be added to tobacco at practically any point in the manufacturing process using solvents such as water, alcohol, freon, or top flavor.

797. In 1977, Lorillard's enriched nicotine project continued to be the company's highest priority project. At that time, the company's management was apprised of the plan for the manufacturing department to provide marketing with a schedule to produce the "enriched nicotine product."

798. That same year, Lorillard researchers submitted a report of an investigation on "Enrichment of Reconstituted Leaf Nicotine by Direct Addition of Nicotine Alkaloid to the RL Slurry." In the report, the researchers concluded the "[n]icotine content of the final product can

easily be controlled by the addition of predetermined amounts of nicotine alkaloid."

799. A 1977 update on the "Nicotine Enrichment Project" informed management that the most promising method of enriching nicotine is by adding nicotine alkaloid to tobacco. Eleven years before the Surgeon General confirmed the scientific, medical, and public health consensus that nicotine is the cause of smoking addiction, the company's researchers confirmed Lorillard's knowledge about the importance of nicotine in smoking, stating bluntly, "Tobacco scientists know that physiological satisfaction is almost totally related to nicotine intake."

800. Other Lorillard attempts to increase nicotine delivery of its lower tar cigarettes focused on increasing the nicotine yield in the cigarette smoke. The company researched and utilized several methods of increasing nicotine delivery.

[REDACTED]

[REDACTED]

801. Lorillard conducted research on ammonia and smoke pH well into the 1990s. In 1995, company investigated the ability of diammonium phosphate to impact nicotine delivery and smoke pH. In 1998, the company calculated the amount of ammonia needed to change blood pH in the human lung.

802. As late as October 2000, Lorillard continued to use additives to effect smoke pH and produce ammonia. An October 3, 2000 Lorillard memorandum reflected the concerns of Lorillard's then-CEO, Dr. Alexander Spears, concerning the use of ammonium carbonate to change pH balance: "[Spears] had a big concern about using ammonium carbonate to change the pH. His point was that much of the pH changes reported have shown that when the ammonia is generated is just as, if not more, important than the amount. He would like us to use urea instead, since it will allow ammonia to be generated at a more even rate and at higher

temperatures than with the use of ammonium carbonate."

(v) Liggett

803. Defendant Liggett also aggressively pursued designing a cigarette with increased smoke pH. A 1971 progress report on project TE-5001 reported that "[i]ncreasing the pH of a medium in which nicotine is delivered increases the physiological effect of the nicotine by increasing the ratio of free base to acid salt form, the free base form being more readily transported across physiological membranes." The importance of this finding was explained: "[w]e are pursuing this project with the eventual goal of lowering the total nicotine present in smoke while increasing the physiological effect of the nicotine which is present, so that no physiological effect is lost on nicotine reduction."

804. By early 1972 Defendant Liggett had achieved its goal of increasing the smoke pH. Another report on project TE-5001 was issued. This report declared the pH studies successful: "[t]he original purpose of this development was to increase the smoke pH through the addition of a basic material to the tobacco in order to achieve a higher physiologic effect from the nicotine in the smoke. This has been accomplished." Liggett's researchers found related results from the study encouraging, reporting "the above-observed facts would seem to present intriguing possibilities in the development of new products, particularly in the development of low yield cigarettes where it is desirable to obtain a higher physiologic effect from a cigarette yielding relatively small amounts of nicotine." Liggett's problem became not one of increasing the pH, but rather one of taste. "Taste disadvantages" needed to be overcome in order to market the product. The report set forth various ways Liggett would attempt to make the cigarette

smokable.

805. Liggett continued its work on the TE-5001 throughout the 1970s. During this time, company scientists developed a sound base of knowledge in the area and advised management of the perceived benefits of increasing smoke pH, writing: "[a] low smoke solids, low nicotine cigarette with an increased smoke pH would then have relatively more free nicotine in its smoke. Consequently, a higher nicotine impact would result producing a more satisfying smoke." This report, and others, went on to discuss methods, including filters, blends, and additives, by which the smoke pH could be altered. It was reported that "all the increased smoke pH cigarettes generally exhibited an increased physiological impact."

806. Liggett's work on its smoke pH project continued in 1974. During that year, as part of its continuing effort to increase smoke pH in order to have "relatively more free nicotine in [] smoke and, consequently, a higher nicotine impact," the company continued studying various methods of manipulating cigarette smoke to increase smoke pH, including the use of filters, additives, and different tobacco blends.

807. Liggett continued its work on Project TE-5001 through at least 1978. Through this work and other research, the company was aware of various methods of altering pH by 1976.

[REDACTED]

808.

[REDACTED]

(d) Other Additives

809. Cigarette smoke also contains chemicals that can act synergistically to produce effects that might be even more reinforcing than those of nicotine alone. For example, levels of

acetaldehyde (a chemical involved in alcohol dependence) in smoke can be manipulated so as to produce a mixture of acetaldehyde and nicotine that studies by Philip Morris indicated would be more addictive than either drug alone.

810. Philip Morris studied the compound acetaldehyde during the 1980s. In 1982, a Philip Morris scientist wrote that acetaldehyde readily penetrates the blood-brain barrier. In 1983, Philip Morris determined that acetaldehyde could enhance the positive reinforcing effect of nicotine, and Philip Morris set as a goal finding the ratio of acetaldehyde to nicotine that would have "optimal reinforcing effects." Philip Morris scientists even charted the effect of the presence of acetaldehyde upon sales.

811. Former B&W Director of Research Dr. Jeffrey S. Wigand has testified acetaldehyde is an impact booster that B&W knowingly used to augment the effect and transport of nicotine.

812. Chemicals in the tobacco, the paper, and the filter can also affect the bioavailability of the nicotine. Bioavailability is a measure of how much nicotine gets out of the cigarette and into the smoke and how much of this is absorbed into the blood stream. The way a smoker smokes a cigarette controls how much nicotine is delivered. Other factors include the concentration of nicotine in these particles, how they burn, the burning temperature, the porous nature of the paper, and the level of moisture inside.

813. The content of manufactured cigarettes consists of a variety of kinds of material. Some cigarettes contain pieces of stems. Some have actual tobacco leaf material. Most brands of manufactured cigarettes contain a substance known as reconstituted or sheet tobacco. There are different ways of making reconstituted tobacco. One way is to dissolve it in solvents, add various binding agents and other chemicals, and put it out on rollers in the form of brown paper.

In this process, many water-soluble elements come out, including nicotine. The tobacco manufacturers then treat this material with nicotine and other substances so that it will form a paper that can be shredded, will burn, and will deliver tar and nicotine according to the specifications for the particular cigarette brand.

814. Even to this day, the industry is unwilling to fully disclose information regarding tobacco additives on a brand-specific basis. Some companies have recently begun to provide limited information on their websites, but they all contain various disclaimers and means of preventing regulatory agencies and public health scientists from knowing the full array of ingredients that are used to control tar and nicotine levels in particular brands. These ingredients include what are sometimes referred to as "processing aids" and "flavorings," components which are typically not included in the publicly available "ingredient disclosures," and the decision as to how such categorizations and exclusions are made is by the manufacturer and not a regulatory agency. Furthermore, ingredients and design features in the paper and filter also help meter dosing, but also are not fully disclosed.

815. Providing incomplete ingredient disclosures on a brand-by-brand basis and additional information as to what might be used in a given brand by a long list of approximately 600 potential ingredients has very limited usefulness to research scientists outside the industry who study nicotine pharmacology.

816. Even based on these limited disclosures, however, it is clear the Cigarette Company Defendants use other chemical additives to facilitate the delivery of nicotine.

817. For instance, alternate ammonia sources have been explored. Several other compounds are used in cigarettes that can become ammonia during combustion. For instance, as Lorillard's Spears recognized, urea and glycine, both of which are ingredients in cigarettes,

produce ammonia during combustion and pyrolysis. Indeed, urea produces more ammonia than ammonia phosphates on a weight basis, so that a cigarette with a high urea weight would have more ammonia than one with a similar weight of ammonia phosphates, however, virtually no extractable ammonia would be found from the urea.

818. Internal documents indicate B&W sought to find ways to modify current ingredients to produce ammonia. An undated B&W presentation reported the company was assessing emerging technology, including using "natural methods to generate ammonia (e.g., fermentation)."

819. By 1988, R.J. Reynolds had determined that levulinic acid enhanced the binding of nicotine to nicotinic receptors in rat brain membrane preparations. Research concluded that this appeared to be a "pharmacologically specific effect since it occurred at very low concentrations of levulinate."

(e) Other Research Efforts

820. Many other methods of manipulating nicotine content have been investigated by the Cigarette Company Defendants. The extensive research conducted illustrates the companies' intent and design to control the amount of nicotine delivered to the smoker.

821. Early product design modifications designed to modify the amount of nicotine delivered by a cigarette focused the addition of nicotine to the stem, filter, or tobacco.

822. Philip Morris studied the effects of adding nicotine in 1960. Adding nicotine maleate to blended leaf tobacco was studied to determine if the nicotine content of cigarettes could be increased.

823. Cigarette smoke contains both particulate matter and gaseous components. In general, the particulate matter comprises the mix of substances that can be trapped on a filter and

measured and evaluated, and constitutes the cigarette's "tar." By February 1972, Philip Morris believed it had substantial control over the content of the smoke delivered to smokers by its products, and could limit the delivery of substances in the particulate phase of smoke it acknowledged were "unhealthful." In a memorandum memorializing an "Idea Disclosure for an Indirect Cigarette," a Philip Morris scientist described a product which could use indirect heat to generate and deliver to the smoker an aerosol. The researcher stated that "[t]he particulate phase of the aerosol is generated from pure substances and its composition is under full control; hence, it is capable of being made not only not unhealthful, but positively healthful." (emphasis added) Philip Morris never actively pursued the idea of a such an aerosol product.

824. In late 1993, Philip Morris briefly revived this technological approach through its "Ideal Smoke Program," which had as its mission developing "products that deliver only those components necessary to achieve market-place acceptable subjectives and satisfaction." An outline for "research areas applicable to tobacco products only" stated that the objective was to "develop an aerosol delivery system for desired compounds only." The program envisioned a product in which "compounds attributing to taste and impact on large particles which will be trapped in the upper airways and nicotine on small particles which can reach the lungs to achieve the systemic nicotine dose desired." Another 1993 document concerning the Ideal Smoke program, from a high-ranking scientist at INBIFO to Gerry Nixon, a scientist in Philip Morris's R&D Department with whom he worked closely, stated that among "[d]esirable components," "Nicotine and flavor components are perceived as essential."

825. Reynolds experimented with adding nicotine to tobacco stem as early as 1956.

826. In 1986-1987, BATCo investigated adding nicotine directly to cigarette filters.

827. American Tobacco experimented with adding commercial nicotine to its

reconstituted tobacco in 1963. In 1967 and 1968, American investigated the production of nicotine from tobacco plants with almost double the concentration of nicotine. And in 1969, American test-marketed Lucky Strike cigarettes in which nicotine malate was added to increase nicotine levels.

828. In 1973, Lorillard investigated trapping and collecting nicotine from the exhaust gases of its drying operations and calculated the total pounds needed for production cigarettes.

829. In 1977, Lorillard Research attempted various methods to directly add nicotine to tobacco.

830.

[REDACTED]

[REDACTED]

831. Defendants researched other sophisticated methods of manipulating the addictive potential of cigarettes. In 1977, BATCo scientists discussed the drug etorphine, noting that it "is 10,000 times as effective an analgesic as morphine and has addictive characteristics," noting that "[p]erhaps a regular dose of 0.2 ug/day would generate an addictive craving for the source. If so, 6 ug in, say, 30 cigarettes would provide such a dose Do you think the possibility that competitors might use such a route to create brand allegiance for low delivery cigarettes ought to be discussed at the Research Managers Conference?"

832. By the early 1980s, at least two of the Cigarette Company Defendants had developed ways to remove all or nearly all nicotine from tobacco.

833. By 1981, R.J. Reynolds was denicotinizing burley tobacco. This tobacco may have then been added back into certain tobacco blends to help control nicotine levels.

834. By 1982, Philip Morris had the ability to manufacture experimental cigarettes containing very low amounts of nicotine. Consumer acceptance of these cigarettes in consumer studies was very low. Based on these tests, Philip Morris concluded consumers would not accept cigarettes with a minimum amount of nicotine over a long period of time. Nicotine-free cigarettes were therefore determined to be "most unacceptable." Philip Morris revived the idea of a nicotine-free cigarette in the late 1980s. After a period of test marketing, it was withdrawn from the market.

835. Defendants extensively researched nicotine analogues, compounds similar to nicotine which might produce the same effects as nicotine. By 1988, Reynolds was studying hundreds of analogues for their pharmacological effects, including their effect on the same receptors in the brain which are affected by nicotine.

836. The tobacco companies also investigated stereoisomers of nicotine – which have the same chemical formula as nicotine, with the molecules arranged in a different fashion – for their pharmacological activity.

837. Even research conducted in and around the early 1990s, at the time when the Food and Drug Administration ("FDA") was investigating the industry's nicotine manipulation and its implications for product regulation (discussed further below), evidenced a greater understanding of nicotine manipulation than that testified to in 1994 by the companies' officials.

838. For instance, R.J. Reynolds's research on smoke pH and nicotine transfer efficiency continued on even as the Congressional tobacco hearings were taking place. A 1994 Research Summary copied to in-house attorney Charles Blixt from R.J. Reynolds researchers discussed efforts to "determine the effects of the addition of K₂CO₃ [potassium carbonate] (a base) to tobacco on smoke nicotine transfer."

839. [REDACTED]

[REDACTED]

(3) Public Statements

840. Defendants have made numerous false and misleading public statements regarding nicotine manipulation.

841. The Cigarette Company Defendants researched and developed technologies and methods to control and manipulate the amount of nicotine in cigarettes. They did so in order to deliver to smokers what were perceived to be the optimum, or minimum, amounts of nicotine necessary to create and sustain addiction. Notwithstanding the foregoing evidence of Defendants' research and utilization of methods to control the amount and delivery of nicotine, and in addition to publicly disputing the fact that nicotine is addictive, Defendants have denied, repeatedly and publicly, that they manipulate nicotine and nicotine delivery in order to create and sustain addiction.

842. Defendants repeated misleading public representations include giving false or misleading testimony in litigation, before Congress, and in submissions to federal regulatory agencies, as well as the public placement of issue advertising in the United States' media.

843. In February 1994, Dr. David Kessler, the Commissioner of FDA, announced in a letter that evidence was accumulating that suggested the cigarette and smokeless tobacco manufacturers intentionally designed and manufactured cigarettes to deliver the drug nicotine into the human body. The Commissioner resolved to work with Congress to determine the regulatory status of nicotine under the Federal Food, Drug, and Cosmetic Act ("FDCA").

844. In 1994, the United States Congress held a series of public hearings in response to Dr. Kessler's letter. These hearings, before the Subcommittee on Health and the Environment, later became known as the "Waxman hearings" after Subcommittee Chairman Henry Waxman of California. At a Subcommittee hearing held on April 14, 1994, the Chief Executive Officers of the seven leading United States cigarette manufacturers, Philip Morris, Brown & Williamson, Reynolds, Lorillard, Liggett, American, and United States Tobacco Company ("CEOs"), appeared voluntarily to rebut prior testimony given by Dr. Kessler regarding FDA's findings. The company officials testified under oath and before television cameras with every reason to believe that their testimony would be made available to the American public. The CEOs' sworn testimony was both false and misleading. During the April 14, 1994 hearing:

- Philip Morris did knowingly cause to be transmitted the testimony of President and Chief Executive Officer William I. Campbell. Campbell denied that nicotine is addictive, denied that Philip Morris research establishes that smoking is addictive, and denied that Philip Morris manipulates the amount of nicotine contained in cigarettes.
- During the same hearing, R.J. Reynolds did knowingly cause to be transmitted the testimony of Chairman and Chief Executive Officer James Johnston. Johnston denied that nicotine is addictive and denied that Reynolds manipulates the amount of nicotine contained in cigarettes.
- American did knowingly cause to be transmitted the testimony of its Chief Executive Officer, Donald S. Johnston. Johnston denied that American manipulates the amount of nicotine contained in cigarettes.
- Brown & Williamson did knowingly cause to be transmitted the testimony of Chief Executive Officer Thomas Sandefur. During this hearing, Sandefur made material misrepresentations regarding B&W's control of the amount of nicotine contained in its cigarettes.
- Lorillard did knowingly cause to be transmitted the testimony of Chief Executive Officer Andrew H. Tisch. During this hearing, Mr. Tisch denied that Lorillard manipulates the amount of nicotine contained in cigarettes.
- Liggett did knowingly cause to be transmitted the testimony of Chairman and

Chief Executive Officer Edward A. Horrigan, Jr. Horrigan denied that Liggett manipulates the amount of nicotine contained in cigarettes.

845. The Tobacco Institute also made a statement before Congress on the subject of nicotine. On March 25, 1994, the Tobacco Institute's spokesman, Charles O. Whitley, made the statement that FDA Commissioner Kessler's suggestions that cigarette manufacturers add nicotine to cigarettes to produce and sustain addiction were "unequivocally . . . false." Whitley testified the manufacturers "subtract nicotine" and "remove" it during the manufacturing process, but "do not set nicotine levels for particular brands" and "when . . . 'tar' levels" are reduced, "nicotine is reduced automatically."

846. Important information regarding the ability of additives to affect nicotine delivery was omitted from congressional testimony. For instance, none of the CEOs disclosed at the congressional hearings the widespread use of ammonia to manipulate the level of free nicotine and, thus, the concomitant nicotine "kick" in their cigarettes.

847. Defendants' misinformation campaign continued in the print media in and around the time of the Waxman hearings.

848. In a 1994 advertisement, Philip Morris stated: "Philip Morris does not 'manipulate' nicotine levels."

849. B&W issued a press release in 1994 which stated: "B&W does nothing in the manufacture of its tobacco products that increases the level of nicotine above that which is naturally found in the tobacco plant, nor does it artificially increase nicotine."

850. One particular tagline by which Defendants have misled the public is their oft-stated position that "nicotine follows tar." This position is proffered publicly, despite years of internal research demonstrating Defendants' ability to alter the ratio between tar and nicotine.

851. Certain Defendants, including R.J. Reynolds, Lorillard, B&W, American, and the Tobacco Institute, have issued press releases and/or represented to Congress that the nicotine levels in the manufacturing companies' products are purely a function of setting the tar levels of such products.

852. For instance, in his 1994 testimony before the Waxman Subcommittee, Lorillard's Spears stated that "[n]icotine follows the tar level," and the correlation between the two "is essentially perfect," and "shows that there is no manipulation of nicotine." In a 1981 study, however, Spears had previously stated explicitly that "low-tar" cigarettes used special blends of tobacco to keep the level of nicotine up while tar is reduced: "[T]he lowest tar segment [of product categories] is composed of cigarettes utilizing a tobacco blend which is significantly higher in nicotine." Dr. Spears did not inform Congress of his earlier statement.

853. The Tobacco Institute also drafted a 1994 press release which stated: "Cigarette manufacturers do not 'manipulate' the level of nicotine in various brands. Nicotine levels follow 'tar' levels – as manufacturers have reduced 'tar' levels and yields over the years to satisfy changing consumer tastes, nicotine levels and yields have fallen correspondingly."

854. Similarly, a 1994 Reynolds advertisement appearing after the Waxman hearings stated: "We do not increase the level of nicotine in any of our products in order to addict smokers. Instead of increasing the nicotine levels in our products, we have in fact worked hard to decrease 'tar' and nicotine."

855. In January 1998, Philip Morris Companies' Chief Executive Officer Geoffrey Bible testified before the House Commerce Committee in hearings which were televised nationwide. During the hearing, Bible misrepresented the effect of ammonium compound on the delivery of 'free' nicotine.

856. In late 1990s, an R.J. Reynolds scientist gave a presentation to the World Health Organization which denied that R.J. Reynolds was using ammonia to manipulate nicotine intake from its tobacco products.

857. Cigarette Company Defendants' efforts to mislead extend to designing ways to mislead or hide information about their product design from regulatory authorities.

858. For instance, in the early 1990s, R.J. Reynolds employee Ken Shu sent an inter-office memo to Brian Lawrence regarding using levulinic acid derivatives and nicotine levulinate salts to reduce "throat harshness" in high nicotine tobacco products. Shu recommended use of high nicotine tobacco extracts to make nicotine levulinate salt "so it may be legally considered a natural process."

859. The industry did not declare nicotine sulfate on its list of ingredients submitted to HHS in 1994 "because its usage was outside the scope of the requirement to report" and the "increase in nicotine smoke is not detectable by FTC."

860. Defendants' deception, suppression, and conspiracy regarding nicotine manipulation continues to this day. For instance, Cigarette Company Defendants' representatives continue to deny the link between nicotine and addiction (On January 6, 2003, Philip Morris served a Supplemental Response to a Request for Admission in this case, admitting that "nicotine in cigarette smoke is addictive."), and deny that nicotine levels in cigarettes are manipulated, choosing instead to rely on two false or misleading industry defenses, either that "nicotine follows tar" or that "nicotine levels affect the cigarettes' taste."

861. As of January 1, 2003, R.J. Reynolds' continued to make misleading statements regarding nicotine manipulation. A statement on its website on that day maintained that the company did not "do anything to enhance the effects of nicotine on the smoker."

862. As of January 1, 2003, B&W's website contained a similar representation: "Brown & Williamson does not in any way control the level or nature of nicotine in cigarettes to induce people to start smoking or to prevent people from quitting."

863. On June 21, 2002, Hector Alonso, Vice President of Product Development and Technology at Philip Morris, unequivocally testified that Philip Morris does not exercise control over the level of nicotine in the cigarettes it sells. Asked "Does Philip Morris exercise any control over the level of nicotine in the cigarettes that it sells?" Alonso answered only: "No." Alonso further testified that Philip Morris controls tar delivery, and parroted the oft-invoked public industry position that nicotine follows tar.

864. On May 23, 2002, Lonnie Joe Inman, Vice President of Manufacturing for R.J. Reynolds, testified that diammonium phosphate is added to reconstituted tobacco extract for a signature taste.

865. Inman further testified that filters could be designed that would eliminate amounts of nicotine in cigarettes, but he has not attempted to create one.

(4) Conclusions

866. The above-described conduct was material to the decisions of smokers and prospective smokers, and influenced the decisions of persons to initiate, continue, or quit smoking, as well as the decisions of others to initiate, forgo, or otherwise affect efforts to address smoking and health issues, including addiction, thus increasing the number of cigarettes sold.

867. But for Defendants' misconduct, fewer people would have begun to smoke, fewer would have become addicted to cigarettes, and those who had begun but desired to quit would have realized that the task might involve professional and/or medical assistance. The length of time in which, and the vigor with which, the Defendants pursued their campaign of obfuscation,

misrepresentation, and concealment leads this Court to the conclusion that the profitability of the misconduct was high.

868. The Cigarette Company Defendants designed cigarettes to ensure low tar and nicotine numbers, while still delivering sufficient levels of nicotine to maintain addiction and dangerous levels of tar. There are documents from all of the companies that demonstrate that, at least by the early 1970s, all of the companies engaged in various efforts to control nicotine levels precisely and at levels that would continue to addict smokers and that all companies knew that smokers were wrongly turning to "light" or "low tar" cigarettes for health reasons.

869. There are many other examples of similar documents demonstrating that each of the Cigarette Company Defendants implemented one or more methods to control the delivery of nicotine, to ensure that smokers would remain addicted, and to fool smokers into believing that they were somehow using a less addictive and less harmful product.

D. Deceptive Marketing of Low Tar and Filtered Cigarettes

(1) Defendants Intended to Deceive the Public into Believing That Low Tar and Filtered Cigarettes Are Safer Cigarettes

870. In the 1960s, Defendants responded to consumer concerns about the adverse health effects of smoking by developing and marketing so-called "low tar/low nicotine" cigarettes and filtered cigarettes. "Low tar/low nicotine" cigarettes are those advertised or marketed using terms such as "light," "low tar," "lower tar," "lowered tar," "ultra low tar," "ultralight," "mild," and other such adjectives known as "brand descriptors." Except as otherwise indicated, the Court uses the term "low tar" to refer generally to this class of cigarettes. Low tar cigarettes are designed to generate lower tar measurements and nicotine levels on the FTC and other standard machine smoking tests than do other cigarettes.

871. In the 1960s and into the 1970s Defendants sought to produce low tar cigarettes, promoting the idea that reduction of tar and nicotine as measured by the FTC produced a "safer" cigarette. Defendants' claims that these cigarettes delivered reduced tar and nicotine to smokers and were therefore less harmful represented an attempt to confuse the public. Several of the Defendants' claims that their cigarettes are less harmful refer specifically to the use of filters in reducing harm, either due to their reduction of FTC tar and nicotine yields or for some other reason. As noted by the FTC in its 1981 Report, Philip Morris's Parliament and Brown & Williamson's (formerly American Tobacco's) Tareyton cigarettes "imply that their special filters minimize the risks of smoking."

872. Some examples of low tar cigarette brands marketed by each Defendant are listed below:

- **Philip Morris:** Benson & Hedges Multifilter; Cambridge; Cambridge Lights; Chesterfield (purchased from Liggett); Lark (purchased from Liggett); Marlboro Lights; Marlboro Ultra Lights; Merit; Parliament; Accord
- **R.J. Reynolds:** Camel; Doral; Vantage; Premier; Eclipse
- **Brown & Williamson:** Barclay; Carlton (formerly of American Tobacco); Kool; Tareyton (formerly of American Tobacco); Viceroy; Advance; Advance Lights
- **BATCo:** du Maurier, State Express 555 Lights
- **American:** Carlton, Tareyton Lights, Pall Mall
- **Lorillard:** Kent; Old Gold; True
- **Liggett:** Chesterfield; L & M Filters; Lark; St. Moritz; Omni Kings; Omni Lights Kings; Omni Ultra Lights 100s

873. Between 1967 and 1981, the market share of low tar cigarettes (i.e., cigarettes with an FTC-reported tar yield of 15mg. or less) rose rapidly from 2% to 56%. By 1998, low tar cigarettes accounted for 81.9% of total cigarette sales.

874. Approximately two-thirds of all cigarette brands currently sold in the United States are advertised as low tar.

875. Defendants have marketed "low tar/low nicotine" cigarettes with claims such as "light" and "ultra low tar" to suggest to consumers that smokers of these products inhale less tar and nicotine than smokers of other cigarettes. Defendants have long been aware that substantial numbers of smokers interpret brand descriptors to mean that these products are less hazardous. In fact, Defendants deliberately designed these cigarettes in a way that enables the user to derive

sufficient amounts of nicotine to create and sustain addiction – amounts comparable to those delivered by regular, full-flavor cigarettes. As a result, low tar cigarettes do not actually deliver the lower levels obtained in machine tests. Indeed, there is no meaningful reduction in disease risk in smoking low tar cigarettes as opposed to smoking regular cigarettes.

(a) Defendants Knew That Light Cigarettes and Filtered Cigarettes Are Not Less Harmful

876. Despite their public statements and advertisements implying health benefits from smoking cigarettes with low reported tar and nicotine yields, Defendants' own internal documents amply demonstrate their knowledge that "light" and filtered cigarettes are no less hazardous than regular cigarettes.

877. The heads of research of Philip Morris, R.J. Reynolds, Brown & Williamson and Liggett (William W. Bates, Liggett Research Director, Murray Senkus, R.J. Reynolds Director of Research, Helmut Wakeham, Philip Morris Vice President of Corporate Research and Development, as well as Allan Topol of the law firm of Covington & Burling) attended a May 24, 1968 meeting at a Liggett facility to discuss the FTC Method. The minutes of the meeting demonstrate that these Defendants knew that any claim that lower FTC tar and nicotine yields resulted in lowered exposure to smokers was unsubstantiated: "We expect to be able to show that FTC Tar and Nicotine are of limited or questionable value as a measure of potential exposure to the smoker. . . . [T]he principal determinate of exposure is the individual smoker's smoking behavior pattern."

878. Defendants' research provided additional evidence that low tar cigarettes as designed and marketed were unlikely to be any less hazardous. Indeed, the research showed that

[REDACTED]

(i) Philip Morris

879. An October 28, 1964 internal presentation to Philip Morris's board of directors explained that Philip Morris's primary goal was not to develop less harmful products, but to develop products that would be perceived as less harmful: "Please recall that our number one objective is to develop products having maximum consumer appeal in the current and future health conscious marketplace."

880. To promote this stated goal of creating the perception of reduced harm, Helmut Wakeham, Philip Morris Director of Research, stated in a 1964 memorandum: "The health value of filters is undersold in the [Surgeon General's] report and is the industry's best extant answer to its problem. The Tobacco Institute obviously should foster the communication of the filter message by all effective means." Wakeham also acknowledged in his memo that the industry did not have evidence to support its contemporaneous public claims – both express and implied – that filtered cigarettes were safer than unfiltered cigarettes, and proposed such research. However, at no time prior to 2001 did any Defendant undertake any such study relating to the cigarettes sold by the Defendants.

881. A June 1966 Philip Morris report prepared by Philip Morris marketing researcher

Myron E. Johnston, Jr. for Helmut Wakeham and others stated: "The illusion of filtration is as important as the fact of filtration. Therefore any entry should be by a radically different method of filtration but need not be any more effective. . . . [T]he illusion of filtration was more important than the fact of filtration Several studies have shown that a large proportion of smokers believe that any filter reduces the health hazard"

882. An April 1974 Philip Morris review of smoking and health literature acknowledged that no low tar cigarette in existence was less harmful, and that the low tar cigarettes it had designed may in fact be more harmful:

Safer though it may be to take in less nicotine, tar and CO, to what extent [sic.] is this achieved by changing to a low nicotine cigarette? The information available is scanty and conflicting. . . . [A] cigarette with a high nicotine yield would enable heavy smokers to curb their tobacco consumption, and harmfulness would be further reduced if, at the same time, the tar and CO yields were low. At present a cigarette combining a high nicotine yield with a low tar and CO yield does not, so far as we know, exist. . . . If nicotine is the addictive compound in the tobacco smoke, cigarettes with low content of nicotine may even be more dangerous than the usual cigarette, due to their supposed higher degree inhalation (emphasis added)

883. A March 1, 1977 memorandum by Stanley Schachter of Philip Morris to Thomas Osdene, Philip Morris Director of Research, indicates his view that low tar/low nicotine cigarettes are not less harmful: "[I]t would certainly seem that the campaign for low nicotine cigarettes is misguided and rests on a set of fallacious premises. . . . It is . . . clear . . . that the major body of data that has been used to justify the campaign for low nicotine cigarettes does nothing of the sort."

884. By 1978, Philip Morris had substantial evidence that "filter dilution [which Philip

Morris used to reduce FTC tar and nicotine yields] was somehow acting to increase" the "activity" of the whole smoke condensate ("WSC") collected from its cigarettes. Further experiments confirmed that the tar from ventilated low tar reference cigarette measured higher on mutagenicity tests than non-ventilated products. Additional research conducted in 1979 yielded the same result.

885. A May 11, 1982 Philip Morris document from INBIFO (Philip Morris's overseas research facility) indicated that Philip Morris learned from its testing in Europe that the "[l]ow tar reference cigarette . . . [m]ay be slightly more active than 2R1 [the regular delivery Kentucky reference cigarette] as a complete carcinogen."

886. A January 28, 1994 report from INBIFO to Philip Morris in Richmond stated that "[i]ncreased filtration will result in a relative enrichment of gas phase constituents, leading to increased cytotoxicity and irritancy Increased porosity and ventilation will . . . increase the specific mutagenicity."

887. Documents and testimony presented in this case confirm that the tar in Philip Morris's products marketed as light or low tar can register higher mutagenicity than the tar in the full flavor version of that brand.

[REDACTED]

[REDACTED]

(ii) R.J. Reynolds

888. Defendants' internal documents also indicate that R.J. Reynolds marketed one type of purportedly less harmful cigarette shortly after its Chairman called for all cigarette

companies to desist from such advertising because the product was not what it was represented to be. A May 24, 1964 memo from Robert K. Heimann, Vice President of American Tobacco, to Robert B. Walker, American Tobacco President, recounted that a few months prior an "earnest plea" was made by Bowman Gray, the Chairman of R.J. Reynolds, "that the members of the [Tobacco] Institute desist from promoting charcoal filtration on the ground that charcoal wasn't what it was cracked up to be." Within months of Bowman Gray's statement, R.J. Reynolds introduced its own charcoal filter cigarette, Tempo.

889. A September 1968 R.J. Reynolds memo on health-image versus health-oriented cigarettes illustrated that the company specifically distinguished "health reassurance" cigarettes such as low tar cigarettes, which Defendants represent to the public as less harmful, from "health orientated" cigarettes, which are actually less harmful: "[T]wo types of product should be clearly distinguished, viz: a) A Health-image (health-reassurance) cigarette. b) A Health-orientated (minimal biological activity) cigarette, to be kept on the market for those consumers choosing it."

890. In May 1980, R.J. Reynolds scientist C.T. Mansfield performed the Ames test for mutagenicity on the tars from twenty-four domestic brands with various FTC tar deliveries, and found "a trend for low 'tar' cigarettes to show higher revertent numbers per mg 'tar.' However, on a per cigarette basis, low 'lar' cigarettes still show lower total revertent numbers."

891. A September 29, 1992 R.J. Reynolds internal presentation stated: "Higher tar cigarettes tend to have lower Ames activity [a measure of mutagenicity] . . . than lower tar cigarettes."

892. On July 24, 2002, David Townsend, R.J. Reynolds's safe cigarette design expert

and head of its Research & Development, acknowledged what research directors at Philip Morris, R.J. Reynolds, Brown & Williamson, and Liggett acknowledged as early as 1968: that any purported health benefit of low tar cigarettes is uncertain at best due to smoker compensation.

(iii) Brown & Williamson

893. By 1968, senior scientists at Brown & Williamson and BATCo already viewed the low tar cigarette as a sham. The researchers made a distinction between what they called "health-image" and "health-oriented" cigarettes, with the former providing merely the appearance, and the latter the substance, of reduced health hazard. A December 4, 1968 letter from R.A. Sanford, Brown & Williamson Director of Research and Development, to Dr. S. J. Green, BATCo scientist, regarding "conclusions from the Hilton Head Meeting" acknowledges that low tar cigarettes are not less harmful, but merely perceived by the public as such: "It was also recognized that there are two types of health products possible and that they should be distinguished. (a) Health image (health reassurance cigarette) such as a low tar – low nicotine cigarette which the public accepts as a healthier cigarette and (b) Health-oriented cigarette which has minimal biological activity; for example, one which would yield a near zero reading in a mouse skin painting test."

894. A February 4, 1976 memorandum from Ernest Pepples, Senior Vice President of Brown & Williamson, entitled "Industry Response to Cigarette/Health Controversy" illustrated the industry's understanding that the low tar and filter cigarettes they were marketing as less harmful were not likely to be less harmful:

The industry has moved strongly toward filtered cigarettes, which have increased from 0.6% in 1950 to 87% in 1975. . . . This

became known as the 'tar derby' of the late 1950's. It was characterized by sharply intensified advertising competition. . . . The new filter brands vying for a piece of the growing filter market made extraordinary claims. . . . It was important to have the most filter traps. Some claimed to possess the least tars. In most cases, however, the smoker of a filter cigarette was getting as much or more nicotine and tar as he would have gotten from a regular cigarette. He had abandoned the regular cigarette, however, on the ground of reduced risk to health. . . . The manufacturers' marketing strategy has been to overcome and even to make marketing use of the smoking/health connection. . . . Thus the 'tar derby' in the United States resulted from industry efforts cater to the public's concern and to attract consumers to the new filtered brands. . . . The current duel between True and Vantage and between Carlton and Now are other examples of competitive efforts to capitalize on the smoking/health controversy. (emphasis added)

895. An August 5, 1980 Brown & Williamson document signed by J. Kendrick Wells, III, Brown & Williamson Assistant General Counsel, acknowledged that "[t]here was question about the degree of support . . . at the present time" for the "scientific opinion that certain low levels of 'tar' consumption are relatively safe to the smoker," and that "for the longer term the support may be quickly eroding."

896. A December 28, 1981 memorandum by J. Kendrick Wells, III, Brown & Williamson Assistant General Counsel, summarized notes of a December 9, 1981 meeting with L.C.F. Blackman (Director of Research for BATCo), Clausen Ely (Covington & Burling attorney), Timothy Finnegan (another industry attorney), Donald Hoel (Shook, Hardy & Bacon attorney), and others within the tobacco industry. Counsel discussed the legal risk of statements regarding "low tar" or modified products. Discussing the "controversy" over whether "tar" causes cancer and whether lowering "tar" has health consequences, Blackman stated: "One answer is by making both types of products (high and low 'tar'), so that the consumer can take his

own informed risk. We can then override the warning notice on low 'tar' cigarettes, but leave the warning notice on high 'tar' cigarettes." Finnegan responded that "[t]he problem is that as the questions work out, it may turn out that the lower 'tar' cigarettes have higher risk." To that, Hoel responded: "Reliance on low yield/low risk science could also produce a duty to change the warning notice to specifically mention low 'tar' cigarettes." Blackman then stated: "We could say that there is not causation, that we are funding research pertaining to low 'tar' cigarettes; we don't know the health consequences of low 'tar' cigarettes . . . we don't believe they are harmful." Blackman then stated: "The main thing going for the industry is that it is prepared to attack the [cancer] problem by reducing the 'tar' content of cigarettes; there is no mileage in talking about the other side of the coin because our adversaries then criticize the tobacco industry for failing to admit the balance of the evidence."

897. A Brown & Williamson October 31, 1989 internal memorandum entitled "Objections to Product Innovation Strategy" from Wells to Brown & Williamson's R.J. Pritchard, Brown & Williamson executive and member of the Tobacco Institute's Executive Committee, conceded that "it is not established that the reduction or removal of specific smoke constituents or of smoke constituents across the board, such as in low tar cigarettes, is significant for smoking and health."

(iv) BATCo

898. A BATCo report entitled "The Product in the Early 1980s," which "considers the

main threats to the smoking habit [and] the probable constraints on the type of product in the future," indicated that the industry's focus was on portraying the "image" that its products were less harmful, as opposed to producing products that were, in fact, less harmful. The report stated that "opportunities exist for filter and cigarette designs which offer the image of 'health re-assurance.'"

899. A December 1981 BATCo memorandum to BATCo counsel providing a critical analysis of legal and scientific problems raised by a presentation by L.C.F. Blackman on the safety of low yield cigarettes stated: "The following may constitute a very dangerous admission [by Blackman]: I have also tried to give some indication of the way the tobacco industry shares the concerns of those who are working in [the low tar] area, and has tried to respond to those concerns . . . by introducing new products in line with medical and scientific opinions" (emphasis added)

900. A February 18, 1988 BATCo study of cigarette mutagenicity by E.D. Massey from the Brown & Williamson Research & Development Library demonstrated BATCo's awareness that the cigarettes Defendants had designed to deliver low levels of FTC tar and nicotine were more biologically active according to BATCo's own research. The report found that the "lighter" the purported delivery of the cigarette, the higher the mutagenicity. Using Philip Morris cigarettes as an example, Merit cigarettes had higher mutagenicity than Marlboro Lights, which in turn had more mutagenicity than regular Marlboro cigarettes.

901. A June 9, 1982 BATCo document entitled "Technical Exchange Meeting" noted that Ames testing had revealed that "[t]he specific activity [a measure of mutagenicity] of a plain

cigarette was found to be lower than that of a ventilated filter cigarette."

(v) American Tobacco

902. A 1963 article co-authored by Robert K. Heimann of American Tobacco entitled "Heavy Smokers with Low Mortality and the Urban Factor in Lung Cancer Mortality" (reprinted from Industrial Medicine & Surgery) showed that American Tobacco was aware that indications that low tar cigarettes were less harmful than regular cigarettes were unsupported. After reciting results of other studies indicating that light cigarette smokers were less likely than smokers of high tar cigarettes (and in many cases, less likely than nonsmokers!) to die from a host of health problems, including heart disease, diabetes and stomach cancer, Heimann concluded that these results were "absurd consequences."

(vi) Lorillard

903. Several Lorillard in-house reviews of smoking research in the 1970s and 1980s concluded that smokers of low tar cigarettes generally compensated (via altering their smoking methods and habits) to obtain higher levels of nicotine, thus rendering the manufacturer's claims of low tar and nicotine content (and corresponding implied claimed reduction in harmfulness) meaningless.

(vii) Liggett

904. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

(b) Defendants Have Had Extensive Knowledge of Smoker Compensation for Decades

905. Defendants have known since at least as early as the mid-1970's that smokers engage in "compensation" when smoking "light" cigarettes. Although cigarette testing machines (primarily using the FTC Method, described in detail below) reflected a lower tar and nicotine intake for "light" cigarettes, most smokers of "light" cigarettes modify their smoking behavior, or "compensate," to maintain a pharmacologically sufficient dose of nicotine by inhaling more deeply, by holding smoke in one's lungs longer, by covering the ventilation holes in cigarettes with their fingers or lips, and/or by smoking more cigarettes. Defendants are and were well aware of the "compensation" phenomenon and have studied it extensively. Indeed, Defendants intentionally design their cigarettes in order to enable smokers to compensate, thereby inhaling an adequate dose of nicotine to create and sustain addiction. Through a variety of methods and innovations, such as use of ventilation holes, increased ignition propensity (so that the cigarette will burn faster), and expansion of tobacco, Defendants engineered their cigarettes to take advantage of the known "compensation" behavior among smokers. Thus, while Defendants lead smokers to believe they are reducing their health risk by switching to a "low tar/low nicotine"

brand, those smokers are in fact not reducing their health risk.

906. Smokers smoke to obtain the desired effects of nicotine, and tend to adjust their smoking behavior to titrate (control) intake of nicotine to achieve desired levels. As a result, when smokers switch from higher to lower yield cigarettes, they will puff the lower yield cigarettes more frequently and more intensively, will block ventilation holes, and/or will smoke more cigarettes to obtain desired levels of nicotine.

907. Defendants were very aware that nicotine was the reason people smoked and that smokers would adjust their smoking habits to attain their desired "dose" of nicotine.

908. Due to smoker compensation (taking more puffs, taking bigger puffs, smoking more cigarettes, and blocking vent holes) smokers ingest more tar and nicotine and, in the process, more toxins. This is thought to be the reason that, between 1954 and 1994, lung cancer in smokers increased, despite the fact that tar deliveries as measured by the FTC Method decreased to less than one-third of their initial delivery.

909. A November 7, 1997 article in the Centers for Disease Control and Prevention's Morbidity and Mortality Weekly Report ("MMWR") entitled "Filter Ventilation Levels in Selected U.S. Cigarettes, 1997," detailed how many smokers may block ventilation holes in cigarettes, thereby (often unwittingly) increasing their yield of tar and nicotine far beyond that reported by the FTC Method. The report discussed "the potential for smokers to knowingly or inadvertently block filter ventilation holes with their lips or fingers and stated:

Blocking even a portion of the filter vents can markedly increase a smoker's exposure to the harmful components of cigarette smoke. . . [F]ilter vents often are invisible to the unaided eye and the filters do not include a marking . . . to indicate the presence of vents. . . .

Many smokers who block filter vents probably are exposed to substantially higher levels of hazardous smoke than the FTC-rated levels for those brands. . . . An estimated two thirds of U.S. smokers either are unaware of the presence of vents on cigarettes or do not know that tar yields increase when vents are blocked.

The report goes on to state that more than half of persons who smoke cigarettes with an FTC rating of less than 4mg tar block vent holes, thereby increasing tar, nicotine and carbon monoxide yields by well over 50%.

(i) Philip Morris

910. A November 26, 1969 internal industry paper by Helmut Wakeham, then Philip Morris Vice President of Corporate Research and Development, entitled "Smoker Psychology Research" and presented to the Philip Morris Board of Directors stated: "This great variability among smokers results from the fact that a smoker tends to seek his own level of intake. Even while smoking a single cigarette, he adjusts the volume of his puff as he goes down to the rod, compensating for the change in the density of the available smoke. A smoker's intake level is determined by the smoker himself, not by the manufacturers of the cigarettes."

911. A speech delivered in fall of 1969 to the Board of Philip Morris reported: "It would appear that smokers do modify their smoking habits in order to obtain a preferred [nicotine] intake level."

912. An April 1974 Philip Morris review of smoking and health literature found that "there is some evidence that as the nicotine content of the cigarette is increased, the number smoked declines."

913. A September 17, 1975 document on Philip Morris letterhead from Philip Morris

scientist Barbro Goodman to Leo F. Meyer, Philip Morris Director of Research, indicated that due to compensation, smokers got as much tar and nicotine from Marlboro Lights as from full-flavor Marlboros:

Marlboro cigarettes were not smoked like regular Marlboros. There were differences in the size and frequency of the puffs, with larger volumes taken on Marlboro Lights by both regular Marlboro Smokers and Marlboro Lights smokers. . . . The panelists smoked the cigarettes according to physical properties; i.e., the diluton and the lower RTD of Marlboro Lights caused the smokers to take larger puffs on that cigarette than on Marlboro 85's. The larger puffs, in turn, increased the delivery of Marlboro lights proportionally. In effect, the Marlboro 85 smokers in this study did not achieve any reduction in smoke intake by smoking a cigarette (Marlboro Lights) normally considered lower in delivery.

914. A May 1976 study prepared for Philip Morris by The Roper Organization, Inc., stated: "There is some evidence that two criticisms of low tar brands – fast burning and hard to draw on – translate into more smoking once someone has switched to a low tar brand. . . . Low tar smokers were much more inclined than smokers of other types to say they are smoking more."

915. A March 1, 1977 memorandum by Stanley Schachter of Philip Morris to Thomas Osdene, Philip Morris Director of Research, indicates that Philip Morris had a clear understanding of compensation. Among the conclusions were: "Serious smokers smoke to prevent withdrawal. Smokers regulate nicotine intake. . . . The smoker who fails to regulate suffers withdrawal."

916. Philip Morris research in 1977 and 1979, using smoking machines puffing with parameters that simulate how humans puff their cigarettes, showed that the actual yield of tar and other tobacco constituents was substantially higher than that predicted by the FTC standard

smoking machine method. The discrepancies were greater for cigarettes with low FTC tar values, consistent with the concept of compensation.

917. A January 1979 study prepared for Philip Morris by Goldstein/Krall Marketing Resources, Inc., stated:

[R]espondents tended to say that they thought they were smoking a greater number of cigarettes. This might be attributed to the presumed need to compensate for less taste and tar and nicotine. . . It should be pointed out that respondents also verbalized that they were "smoking less", but from the standpoint of less tar and nicotine, not frequency. . . [F]urthermore, many respondents feel they are smoking less in the sense that they are taking in less tar and nicotine as a result of smoking ultra low tar cigarettes. Also, there seemed to be some feeling that more cigarettes could be smoked with less harm because of significantly lower tar levels. . . . the likelihood of ultra low tar smokers taking another step and stopping does not seem great. There appears to be a concept involved that might be called "limiting". . . It could be hypothesized that a potential next step, if taken at all, would be to limit the number of cigarettes they smoke. But since they seem to feel somewhat safer and freer about smoking and in some respects, may be compensating for a lack of taste, they could actually be smoking a larger number of cigarettes per day.

918. In September 1983, Philip Morris Holland ran an advertisement pointing out that BATCo's Barclay cigarettes generated FTC tar and nicotine yields that were drastically lower than the tar and nicotine delivered to smokers of Barclay cigarettes. The Philip Morris advertisement actually mirrored the statements of an anti-smoking group on the issue. BATCo Chairman Patrick Sheehy responded by sending a telex to George Wiseman of Philip Morris, stating: "I find it incomprehensible that Philip Morris would weigh so heavily the short-term commercial advantage from deprecating a competitor's brand while weighing so lightly the long-term adverse impact from an ongoing anti-smoking programme. . . . In doing so, Philip Morris . .

. makes a mockery of Industry co-operation on smoking and health issues."

919. In an October 26, 1983 telephone conversation between Hugh Cullman, head of Philip Morris international operations, and BATCo Chairman E.A.A. Bruell, Cullman agreed not to do anything further to inform the public that the Barclay cigarette produced tar and nicotine measurements by the FTC Method that were deceptively low when compared to what smokers actually inhale from Barclay cigarettes. The notes of the telephone conversation stated, "Essential Industry hang together. Holland activity was not PM company policy. They must try to prevent this happening in the future." Cullman agreed, "PM to instruct its No 1's they must not use anti-smoking activities, statements or programmes for competitive gain."

920. Philip Morris's internal research also proved that Barclay cigarettes deliver to smokers significantly larger amounts of tar and nicotine than its advertised FTC tar and nicotine yields indicate. An October 1986 Philip Morris report by Dr. H.W. Gaisch of the Science & Technology Department at Neuchatel summarized product characteristics:

Due to the vulnerability of the periferic ventilation channels of the ACRON filter, the product performs differently in the field than when being tested under laboratory conditions The results obtained by Fresenius, the US Testing Company, the University of Neuchatel, Dr. Neurath and Dr. Aubort complement each other, and as they are based on different principles of measurement, validate each other. All these studies together prove that BARCLAY yields more tar and nicotine when smoked by the smoker than can be expected from standard machine measurements For example, Barclay, as marketed in Switzerland, has a tar rating of 1 mg on the smoking machine when the channels are operational and 11 mg when the channels are closed.

921. A December 1, 1987 document written by Thomas Sandefur, then President and CEO of Brown & Williamson, to a scientist in Kuwait regarding tar and nicotine testing of

Brown & Williamson's Barclay cigarette via the ISO ("FTC") method stated: "We have also carefully considered your question about providing better consumer information concerning the deliveries from low tar cigarettes. In keeping with your interest [sic] this matter, B&W suggests placing an insert in Arabic and English with each packet of cigarettes stating that "Blocking ventilation may result in higher deliveries of tar and nicotine." The document also stated: "When they block the ventilation holds the smokers of all low tar cigarette brands can get many times the amount of tar and nicotine predicted by the ISO ["FTC"] method."

922. Philip Morris received a copy of the December 1, 1987 Sandefur letter and, aware of its possible implications for the industry, responded aggressively, eventually getting BATCo to agree not to refer to human smoking behavior or compensation. In the agreed upon minutes, "BAT agreed to cease any reference to compensation or human smoking behavior." On January 23, 1989, a memo with agreed-upon "official minutes" from the meeting with BATCo/Brown & Williamson (including M.L. Reynolds) regarding the Barclay filter cigarette was sent to Geoffrey Bible, then CEO of Philip Morris International.

923. A September 8, 1988 memo to Geoffrey Bible, then CEO of Philip Morris International, urged that, as part of any resolution of the dispute over the Barclay cigarette, "BAT will cease all references and discussions relative to human smoking habits (compensation) regarding ventilated products. In other words, discussing who 'cheats' is a non-productive exercise for our business."

924. On January 12, 1989, Steve Darrah, head of Philip Morris International Operations, wrote to Philip Morris International attorney Lee Pollak and then Philip Morris

International CEO Geoffrey Bible regarding an upcoming meeting with BATCo/Brown & Williamson to resolve the dispute over the tar and nicotine rating of Barclay. The meeting included Lance Reynolds from BATCo, an expert for Defendants in this case. The memo stated: "Philip Morris' position will be the following . . . BAT will not raise the issue of compensation and human smoking behavior in the future As we have made a major 'concession' regarding retroactive litigation, we will ask that BAT stop immediately all current efforts on their part to raise the issue of human smoking behavior"

925. On September 8, 1988, Geoffrey Bible, CEO of Philip Morris International, testified that Philip Morris did not take steps in 1988 to prevent Brown & Williamson from discussing the phenomenon of compensation publicly in connection with Barclay cigarette. This testimony is directly contradicted by the correspondence between Philip Morris employees and Brown & Williamson/BATCo employees discussed above, some of which Bible himself received, which detailed Philip Morris's actions to prevent Brown & Williamson/BATCo from engaging in any further public discussion of compensation.

(ii) R.J. Reynolds

926. A December 16, 1988 R.J. Reynolds marketing presentation noted that inquiry of a focus group of smokers found that they had "no understanding of compensation."

927. A November 12, 1990 review of two studies prepared for the Product Differentiation Group of R.J. Reynolds indicated that "[s]mokers of low yield cigarettes adjust

their smoking maneuver to obtain some desired level of nicotine and therefore concomitantly increase their tar intake."

928. A November 12, 1990 review of two studies prepared for the Product Differentiation Group of R.J. Reynolds acknowledged that low tar advertising is deceptive, because "low tar and ultra-low tar cigarettes are not really what they are claimed to be." The report recognized that each smoker has a specific amount of nicotine required from each cigarette and "[v]irtually all cigarettes can be made to yield the desired amounts of nicotine depending on the size of the puff taken and the extent to which the puff is inhaled. . . . Applying the above conclusions to a ULT ["Ultralight"] cigarette (the argument can be constructed) that ULT advertising is misleading to the smoker."

929. David Townsend, head of R.J. Reynolds's Research and Development and R.J. Reynolds's cigarette design expert in this case, testified in this case that R.J. Reynolds accepts the proposition that compensation occurs and it is possible to smoke a low tar cigarette in a manner that will give the person the same amount of tar and nicotine that he would receive from a higher tar cigarette. Since the sales weighted average for tar and nicotine leveled off in 1981, R.J. Reynolds has not progressed toward creating a compensation proof cigarette. Townsend stated that R.J. Reynolds does not attribute compensation entirely to a desire to make up for the nicotine drop between the high and low tar cigarette. Rather, it also points to the physical characteristics of the cigarette such as pressure drop and packing density, along with the sensory characteristics of the smoke generated during the puff. Nonetheless, the company never did an analysis to determine which of these factors has a greater impact than the other, and the company does not

dispute that nicotine is still the primary factor, followed by pressure drop.

(iii) Brown & Williamson

930. Minutes from a 1974 Brown & Williamson/BATCo conference stated: "Whatever the characteristics of cigarettes as determined by smoking machines, the smoker adjusts his pattern to deliver his own nicotine requirements."

931. A 1976 internal memo from Brown & Williamson Vice President and General Counsel Ernest Pepples stated that: "in most cases . . . the smoker of a filtered cigarette was getting as much or more nicotine as he would have gotten from a regular cigarette."

932. A July 25, 1977 Brown & Williamson Internal Marketing Study entitled "Low 'Tar' Satisfaction, Step 1 Identification of Perceived and Underperceived Consumer Needs," in analyzing smokers' satisfaction with low tar cigarettes with regard to switching behavior, stated: "It was noted earlier that new arrivals to the Hi-Fi category realize that they are smoking more cigarettes [quoting a study participant]: 'You can also go down to the lower tar, but increase your smoking. So you're right back where you were.'" The study further noted that "Cigarette consumption, as reported in a 1976 Consumption Study, increases as nicotine (satisfaction per cigarette) decreases."

933. Certain high-ranking officials expressly advised against informing consumers about the likelihood that they would inhale tar and nicotine levels much higher than reported FTC deliveries. An internal Brown & Williamson memo dated June 28, 1985 from Dr. R. A. Sanford, Brown & Williamson Director of Research & Development, to E. E. Kohnhorst, Vice President for the Research Department, discussing research programs for the development of new

products, stated:

Compensation: It exists; most smokers practice it, but we need to understand it better before advantage can be taken in the marketplace. Here, I believe designing to the subconscious is preferred to requiring the smoker to make a conscious act. . . .
Smoker Concerns: The consumer is desperately waiting for help or direction. Biological assurance has not been realized despite the years and money spent. . . . Learn from the Consumer: . . . we are beginning to read [the consumer's] reliance on compensation as more creative procedures are applied in study. There should be product opportunities which reflect from larger or categorical segments of smokers. For example, I would like to see the reactions to the following requests from a studied selection of smokers: List five (5) things that disturb you most about smoking."

934. Despite acknowledging that an insert for Brown & Williamson "lights" informing smokers specifically about compensation "certainly could be done," Brown & Williamson has not produced such an insert.

935. In a Brown & Williamson ADVANCE Lights Kings onsert (a pamphlet attached to cigarette packs), Brown & Williamson admitted that it is aware that, due to the way a smoker smokes, the tar and nicotine levels it is advertising are misleading and do not in fact reflect the levels actually ingested. However, this admission was in the form of a barely legible disclaimer buried at the bottom of the onsert. In addition, the onsert stated that many studies have confirmed that smokers may ingest less tar and nicotine than the FTC yield numbers, and suggested that this is equally likely as the risk that smokers will ingest more tar and nicotine than the FTC Method indicates. This statement is deceptive and unsupported:

The FTC method compares the tar and nicotine yields of different cigarettes when smoked by a machine under identical laboratory conditions. These numbers are intended to provide consumers

with a comparable reference point rather than to guarantee a particular smoke intake. Critics have claimed that tar and nicotine levels determined by the FTC method are misleading to consumers because, under actual smoking conditions, smokers can increase or decrease the amount of smoke that they take in depending on how they smoke their cigarettes. Many studies have confirmed that some smokers may substantially increase or decrease the smoke yield of their cigarettes relative to the numbers predicted by the FTC method.

936. On June 6, 2002, Brown & Williamson CEO Susan Ivey continued to minimize the magnitude of compensation, despite her company's internal recognition of its importance. Ivey testified that compensation "is looking at the way that the smoker smokes the cigarette, and they smoke a lower delivery cigarette. And depending on the way they smoke that, they may get slightly more or less than another smoker who smokes the same cigarette. . . people compensate to try to get more out of something that's lower delivery."

(iv) BATCo

937. A June 27, 1978 BATCo memorandum entitled "Compensation for Changed Delivery" stated:

Numerous experiments have been carried out in Hamburg, Montreal, and Southampton within the company as well as many other experiments by research workers in independent organizations, that show that generally smokers do change their smoking patterns in response to changes in the machine smoked deliveries of cigarettes. . . . In general, a majority of habitual smokers compensate for changed delivery, if they change to a lower delivery brand than their usual brand. If they choose lower delivery brand which has a higher tar to nicotine ratio than their usual brand (which is often the case with lower delivery products) the smokers will in fact increase the amounts of tar and gas phase that they take in, in order to take the same amount of nicotine.

938. A BATCo report entitled "Topics In Smoking and Health 'Bible'" stated:

[T]he expression of product smoke deliveries in the form of a league table, while understandable, can be misleading. There can be no guarantee that a smoker who switches from one product to another delivering a lower 'tar' value will thereby reduce his intake of 'tar.' He may well alter the way he smokes the second product in some subtle fashion and so adjust his intake of smoke to fit his needs. In this way, he may inadvertently increase his intake of other substances in the smoke. League tables and delivery data on products may, therefore, be misleading to the consumer, who will be unaware of the sub-conscious ways in which he manipulates his own behaviour smokers of higher delivery cigarettes may find that they need to smoke more low delivery cigarettes to achieve the same satisfaction Increasingly smokers will accept the alleged harmfulness of smoking, and while wishing to continue will look for health reassurance brands Smoking behaviour is also of importance. For example research into the effects of low tar and nicotine cigarettes on ease of quitting smoking will be undertaken.

939. A January 24, 1985 BATCo letter from Charles H. Keith to Lance Reynolds stated:

that human smokers, even though they ingest much more Nicotine and Tar than is indicated by the FTC values, get about the same amount of Tar and one and a half times the Nicotine from Barclay, Carlton and Cambridge. . . . [I]t is clearly apparent that the human smokers are ingesting much more nicotine and tar than the nominal values obtained by FTC tests. The human levels are six to eight times higher than the normal values.

940. A 1975 report noted: "Compensation study conducted by Imperial Tobacco Company, a BATCo affiliate, [shows that a smoker] adjusts his smoking habits when smoking cigarettes with low nicotine and TPM (total particulate matter) to duplicate his normal cigarette nicotine intake."

941. An internal April 14, 1977 BATCo memo by P.L. Short, Manager of BATCo's Marketing Department, shows that BATCo was intimately familiar with smoker compensation.

It discussed BATCo's plan to "ensure that smoking satisfaction is achieved by franchise smokers within the range of smoker 'compensation' of the original product" and provided for "lowered-delivery spin-offs" of existing brands with deliveries "within the range of smoking satisfaction of the parent brand, via the mechanism of smoker compensation. This 'mechanism' involves involuntary modifications in the method of smoking a cigarette."

942. A June 27, 1978 internal BATCo document written by D.E. Creighton of BATCo Research & Development Centre stated that, because smokers compensate by taking bigger puffs from low tar cigarettes due to compensation and in the process may be obtaining more tar from low tar (as opposed to full-flavor) cigarettes, "there is now sufficient evidence to challenge the advice [of health authorities] to change to a lower delivery brand, at least in the short-term." Creighton also stated that if "the smoker takes more puffs or larger puffs from a lower delivery brand, then it is possible for him to take the same or even greater weights of tar and nicotine from the lower delivery brand than from his own brand. This process of adjusting the delivery of a brand by changing the way in which it is smoked by a smoker is referred to as 'Compensation'."

943. A BATCo document entitled "The Project in the Early 1980s" indicated the industry's disincentive for reducing the amount of nicotine actually ingested by the smoker: "Taking a long-term view, there is a danger in the current trend of lower and lower cigarette deliveries – i.e. the smoker will be weaned away from the habit. . . . Nicotine is an important aspect of satisfaction and if the nicotine delivery is reduced below a threshold satisfaction level, then surely smokers will question more readily why they are indulging in an expensive habit."

944. A BATCo memorandum from December 1981 to BATCo counsel providing a

critical analysis of legal and scientific problems raised by a presentation by L.C.F. Blackman, BATCo Research Director, on the safety of low yield cigarettes, stated:

B. Assurances of Safety If Dr. Blackman quotes or refers to the Surgeon General in support of an argument that low tar cigarettes are safer, he must be very careful to include the Surgeon General's provision that this may be true only if smoking patterns do not change. Otherwise, the industry might be accused of misleading the consumer regarding the Surgeon General's opinions. In effect, Dr. Blackman might be creating a duty to instruct the consumer regarding use of the product. Negligent failure to instruct is a basis for liability, as is negligent failure to warn 3. Compensation. Dr. Blackman mentions that consumers should be made aware of the scientific opinion supportive of a less hazardous cigarette. If the industry points this out, it follows logically that it must also point out the great concern that switchers to lower yield cigarettes compensate by inhaling more or smoking more cigarettes. The question arises of whether this concern should be brought to the attention of the consumer by the industry in the form of a warning.

945. A July 9, 1984 document by Imperial Tobacco Limited, sister company to Brown & Williamson, distributed to various Brown & Williamson and BATCo employees, including Blackman, A.M. Heath, BATCo Executive Director of Marketing, Erhard Koehn, BATCo Manager of Product Development, Rainier Wernitz, BATCo Manager, Market Research, Tilford Riehl, Brown & Williamson Division Head of Product Development, A. Mellman, Brown & Williamson Director of Marketing Research, T. Wilson, Brennan, C.I. Ayers, and G.O. Brooks, BATCo scientist, acknowledged that smokers who switch to lower delivery brands increase the number and intensity of puffs taken and number of cigarettes smoked to achieve a higher dose of nicotine: "BRANDS SWITCHING DOWN DELIVERY: increase in puffing parameters – increase in numbers of cigs. smoked – more puffs taken } means to achieve a higher dose."

946. An internal memorandum dated February 28, 1985 by W.D.E. Irwin, a scientist at

BATCo's Group Research & Development Centre, to Dr. R. Binns, Manager of BATCo Group Research & Development Centre, titled "New Initiatives - Less Contentious Products" stated: "[I]deally we would wish to selectively remove contentious components leaving organoleptically important components untouched. . . . Possible alternative or complimentary approaches include: . . . 2. Techniques to avoid compensation at lower deliveries. . . . Compensation avoidance is built into the current strategy. Increase flavour levels etc., and the need for compensation diminishes."

947. In an internal BATCo document, BATCo acknowledged that, unless lower tar cigarettes were specifically designed to allow compensation, they often were not satisfying to smokers: "Nearly every BAT company has products in the low tar segment of its markets, but they are not generally capturing a major portion of sales In the extremely low delivery range, unless they are specifically designed, they offer poor 'reward for effort' . . ."

(v) Lorillard

948. A December 10, 1976 document by H.S. Tong of Lorillard indicated Lorillard's awareness that smokers compensate to receive their desired level of nicotine: "It seems that, within limits, smokers can and do control their nicotine intake from smoke by varying their smoking techniques. . . . Smokers were known to smoke more when offered low nicotine cigarettes. . . . It would seem desirable to have a low tar cigarette with a nicotine content between the threshold and optimum doses level."

949. Several Lorillard in-house reviews of smoking research in the 1970s and 1980s concluded that smokers of low tar/low nicotine cigarettes generally compensated (by altering

their smoking methods or habits) in order to obtain higher levels of nicotine, thus rendering the manufacturer's claimed low tar/low nicotine content meaningless.

950. A July 30, 1980 memo on Lorillard letterhead entitled "A Review of Behavioral and Psychopharmacological Factors in Smoking" from S.T. Jones, Lorillard Product Design, to other Lorillard personnel shows that Lorillard knew that, due to smoker compensation, the FTC machine-generated tar and nicotine numbers were inaccurately low: "The evidence to date clearly indicates that smokers titrate or regulate their intake of nicotine, e.g. smokers of cigarettes which deliver large amounts of nicotine will adjust – when given low nicotine cigarettes – their smoking to get a larger nicotine dose than the machine determined values indicate." Lorillard also independently acknowledged that, in the 1980's, it knew that smokers of low tar/low nicotine cigarettes would compensate for the low tar and nicotine by altering their smoking habits in order to obtain a higher level of nicotine.

(vi) Liggett

951.

[REDACTED]

[REDACTED]

952.

[REDACTED]

[REDACTED]

953. With respect to its conventional cigarettes, Liggett discloses only the FTC numbers to consumers; not the results generated by any other testing methods, such as the Massachusetts and Texas methods, which more closely resemble the tar and nicotine delivery to actual smokers.

954. The CEO of Lorillard testified that he believed the fact that the FTC tar and nicotine numbers were meaningless due to smoker compensation was obvious and therefore did not need to be explained to smokers.

(c) Defendants' Deception Regarding the FTC Method

955. Since 1967, cigarettes sold in this country have been tested for tar and nicotine yields using a test commonly known as the FTC Cigarette Test Method. The FTC method was developed to provide a relative ranking of nicotine, tar, and carbon monoxide yields from various cigarettes. The method was a slight variation on a test first described by the American Tobacco Company in 1936 for the purpose of enabling comparisons of delivery of nicotine and other substances across cigarettes with different blends and types of tobacco in which the design of the cigarettes was similar.

956. The FTC test was conducted by having a machine "smoke" the cigarettes for a

designated puff volume at a designated interval. As the smoke was drawn into the machine, it passed over a filter known as a Cambridge pad, on which the particulate tar matter collected. That accumulated matter was measured to calculate the tar and nicotine yields for the cigarette.

957. As Defendants were aware, the smoking regimen used in what became the FTC Method was designed to approximate smoking behavior during the 1930s, when cigarettes were relatively simple devices, few employed filters, and perforated filter ventilation cigarettes were not in production.

958. In the mid 1960s, Defendants resisted imposition of the FTC testing method and claimed that it would not be accurate.

959. However, Defendants did not inform the FTC that a major reason that the method could yield misleading data was that nicotine addiction would drive smokers to achieve relatively stable nicotine intakes due to smoker compensation. Without the benefit of this understanding, the FTC made a reasonable conclusion that the method would provide meaningful comparative data across cigarette brands, and these data were provided to the public.

960. Rather than work with the FTC toward procedures that would provide meaningful data, and provide data regarding the actual intake of nicotine from different cigarettes that in turn would have informed the public about actual tar and nicotine delivery, Defendants began to modify their cigarette designs so as to defeat the testing method.

961. When the FTC test method is modified by covering filter ventilation holes and by smoking the cigarettes more intensely (as smokers often do), substantially higher levels of tar and nicotine are measured, and the tar and nicotine ratings of most cigarettes advertised as "light" are

well within the range of the cigarettes advertised as full flavor. In other words, few, if any, actually qualify by the industry's own standards as "light."

962. There have been discussions in the scientific community about revising the FTC cigarette test method so that it is more accurate. Defendants have not supported changing the method. They have argued that the method provided a way for consumers to choose cigarettes and order them from light to strong that was meaningful in terms of tar and nicotine exposures resulting from smoking those cigarettes. Although Defendants were aware that puff frequency, puff volume, and puff duration for smokers of filtered cigarettes varied greatly, they opposed any change to the regimen that would yield higher tar and nicotine ratings.

963. In their 1996 comments on the FDA's proposed tobacco rule and in the 1995 NCI Expert Committee meeting on this topic, Defendants continued to maintain that there was a meaningful relationship between the FTC ratings and tar and nicotine exposure.

964. Moreover, Defendants have repeatedly argued that they have substantially reduced the tar and nicotine deliveries of cigarettes, and they cite the FTC ratings as their primary basis of support for this assertion.

965. Rather than work to design cigarettes that actually deliver lower levels of tar and nicotine and do not enable smokers to compensate, thereby providing more accurate standardized data to consumers and the FTC, Defendants have used a testing method which they understood was flawed to develop and market cigarettes which are advertised as low tar, even though they do not deliver low tar or nicotine to the smoker. This contributed to the rise in prevalence of low tar cigarettes, so that approximately two-thirds of cigarette brands sold in the United States are

advertised as low tar.

(i) Philip Morris

966. A February 18, 1964 Philip Morris Research Center report to Philip Morris management prepared by Helmut Wakeham, then Philip Morris Director of Research, proposed that Philip Morris influence the testing procedure to be used by the government (and the FTC specifically) to measure the harmfulness of cigarettes for its own ends and exploit the governmental testing methodology as a vehicle for advertising:

[T]he following recommendations are offered to Philip Morris management: . . . Move promptly and effectively toward establishment of suitable biological approval specifications for all new smoking products. It may be expected that in time the Government will force the adoption of such specifications, in which case Philip Morris would be able to influence the setting of the 'uniform and reliable testing procedure' (proposed FTC Rule 3) consistent with our own methodology. Apart from possible legal requirements, such a policy would enhance advertising opportunities.

967. A June 1966 Philip Morris report prepared by Philip Morris marketing researcher Myron E. Johnston, Jr., for Helmut Wakeham and others illustrates that, as of 1966, Philip Morris was continuing with this plan by developing cigarettes that would generate low tar and nicotine numbers on the FTC machines, but deliver much higher levels when smoked by humans:

In the event of . . . the passage of legislation requiring a statement of 'tar' and nicotine content on the pack, the delayed dilution cigarette could be a formidable entry as a full tobacco flavored cigarette. It could compare favorably with any health cigarette currently on the market yet deliver full flavor throughout the crucial first 40mm of the rod. I am of the opinion that we should press development of this concept.

968. A 1969 Philip Morris report of the findings of a Philip Morris study of filter

smokers' intake patterns indicated that the FTC Method has "no practical value for predicting smoke intake."

969. A March 7, 1974 Philip Morris document from Helmut Wakeham to Raymond Fagan, Philip Morris Principal Scientist, entitled "Moral issue on FTC Tar" stated: "Some concern has been expressed concerning the moral obligation of Philip Morris (and perhaps the tobacco industry) to reveal to the FTC the fact that some cigarette smokers may be getting more tar than the FTC rating of that cigarette. You mentioned in your presentation at the Center on Tuesday, March 5, that such concern was voiced in N.Y. at your talk there. And it was expressed again by some individuals who heard you in Richmond. . . . I believe that there need be no such concern, at least from a position of morality."

970. Discussion points in a January 13, 1997 document prepared for Denise Keane, Philip Morris General Counsel, to use in describing Philip Morris's opposition to changing the FTC test methodology stated, under the heading "Weakness in PM argument": "Original methodology was an attempt to match then-current market -- non-filter smokers. Puff volume has probably increased as products on market decreased."

971. Also, a Philip Morris "Discussion Points" memo with Keane's handwriting indicates that (1) the FTC method was established at a time when non-filter products dominated the market; and (2) "internal research...reflects at least limited evidence of compensatory smoking" This document shows Philip Morris's recognition that the FTC test yields particularly inaccurate results (compared to other, modified test methods) and that smokers compensate.

972. Philip Morris uses descriptors on its brand packages that it claims are based on

FTC practice. However, Philip Morris has not informed consumers that the descriptors are based on certain measurements from the FTC test, which Philip Morris agrees bear little correlation to tar and nicotine yields for human smokers.

973. In 1997 comments to the FTC, Philip Morris argued that descriptors such as "light" and "low tar" "provided a very legitimate service and enabled adult smokers to distinguish among the brands they choose to smoke; and that issues relating to descriptors could be addressed through communication." Nonetheless, prior to November 2002, Philip Morris had not conducted any such communication campaign about descriptors except (starting in 1999) on its website, which is seen by vastly fewer consumers than Philip Morris advertising or packaging.

974. In February 1997, Leo Burnett (Philip Morris's main marketing agency) provided Philip Morris with proposals for a public communications campaign to educate smokers that their tar and nicotine yields could vary depending on how the cigarette is smoked. Philip Morris used these proposals in discussions with the FTC, but never implemented the educational campaign.

975. In 1997, Philip Morris: (1) opposed R.J. Reynolds's proposal to ban tar and nicotine numbers on packs and advertising (Denise Keane, Philip Morris's General Counsel and Senior Vice President, claimed Philip Morris wanted to continue to provide it in advertising); (2) opposed changes in the FTC test parameters – according to January 13, 1997 talking points, Philip Morris felt "more effective communication would inform smokers of presence of ventilation holes and instruct them not to block"; and (3) argued that proposals for communication to the public should be limited to referrals to an 800 number, rather than to make

brochures available at points of sale or otherwise. In or around 1997, Philip Morris stopped communicating tar and nicotine yields on the packaging of all its brands.

976. The FTC has neither instructed Philip Morris not to provide additional information about tar and nicotine yields and brand descriptors to consumers nor done anything to preclude the company from voluntarily providing that information.

977.

[REDACTED]

[REDACTED]

[REDACTED]

In November 2002, Philip Morris did [REDACTED]

[REDACTED] providing inserts with packages of "low tar" cigarettes and providing glossy information inserts in certain newspapers.

978. This November 2002 action by Philip Morris contradicted the August 2002 testimony of Denise Keane, who stated in her role as Philip Morris's General Counsel that it was her judgment that Philip Morris was actually "precluded" from voluntarily providing information to consumers about the inaccuracy of the FTC test and Philip Morris's reliance on that flawed test as the basis for its brand descriptors. She testified that Philip Morris thought it was important to have the input of the FTC and to understand the way in which the FTC thought it would be

appropriate to communicate this information.

979. Philip Morris contends that its use of descriptors is not misleading because its "use of descriptors is not intended to be misleading and descriptors are not used in a way that is intended to be misleading." However, Philip Morris uses brand descriptors based on the FTC-generated tar and nicotine yields, despite the fact that the company agrees that, in the FTC method, "tar and nicotine numbers do not generate actual yield information."

980. Philip Morris claims that it has not conducted any research to determine how consumers actually perceive brand descriptors, even in response to 1997 request from the FTC.

981. Since 1997, Philip Morris has not included tar and nicotine yield information on any of its cigarette packages for any of its brands.

(ii) R.J. Reynolds

982. In 1965, when the testing procedure to be used by the FTC was still under review, Alan Rodgman, a senior scientist at R.J. Reynolds, told senior management that "the conclusion is therefore inescapable that labeling the amount of 'tar and nicotine' on a cigarette package cannot give to the smoker meaningful information as to the amount of composition of the total solids and nicotine he receives from the cigarette he smokes. He is more likely to be misled than informed."

(iii) Brown & Williamson

983. A June 9, 1982 memorandum authored by Ernest Pepples, Brown & Williamson Vice President and General Counsel, entitled "Low-'Tar' Cigarette Advertising and the FTC Cigarette Testing Program: A Time for Re-Examination" stated:

Since the smoking habits of individuals differ widely, the measured test results do not necessarily represent the precise tar and nicotine yield that any particular smoker will experience when he or she smokes one of the tested brands." "It has been theorized by some that smokers of low-'tar' cigarettes may automatically compensate for the reduced delivery of 'tar' and nicotine by oversmoking, e.g., by puffing more often or more deeply, by smoking each cigarette closer to the filter, or by smoking more cigarettes. . . . FTC's present system further contributes to consumer deception because it allows some cigarette companies to promote heavily a "box" brand, without adequately distinguishing it from the soft pack of the same brand name, which delivers considerably more "tar". In fact, however, the companies produce such a small volume of the box brand as to make it a phantom brand that is rarely found in the marketplace. On the other hand, the soft-pack version bearing the identical brand name and package design but testing at a considerably higher "tar" level, is the version readily available to the consumer an EPA-type disclaimer might be adopted to warn that the FTC figures are standardized measurements derived by laboratory tests; any smoker may get more or less depending on the way he or she smokes the brand in question.

Nonetheless, neither Brown & Williamson nor any other Defendant took even this modest step toward informing consumers of the true meaning of the FTC yield numbers for approximately another twenty years.

984. In a March 19, 1984 letter, Pepples told Howard Liebengood of the Tobacco Institute that "the industry opposes and will resist any 'compromise' [with FTC] that includes requirement relating to 'tar' and nicotine ratings" because such ratings "may be misleading to consumers" and FTC tests bear no relation to actual consumer intake.

(iv) Lorillard

985. On November 18, 1980, Lorillard scientist V. Norman reported on his visit to the American Health Foundation in a memorandum to F.J. Schultz. Norman recounted his

conversation with Dietrich Hoffman about the inadequacy of the FTC test in reporting on actual yields obtained by human smokers and about the possibility for a more representative method. In a parenthetical note in the memo, Norman wrote:

Note: actually what he needs is a pressure drop sensitive smoking machine which could take large puffs from cigarettes that are easy to draw through and would have a hard time puffing on very tight cigarettes. This would simulated human behaviour but, I did not dare to mention anything like that because it would be detrimental to our types of brands.

(2) Defendants Designed Low Tar Cigarettes So That They Would Generate Low FTC Tar and Nicotine Numbers, but Deliver Much More Tar and Nicotine to Smokers

986. Defendants made engineering changes in cigarettes that took advantage of the known compensatory changes among smokers so as to further weaken the relationship between FTC test ratings and actual tar and nicotine deliveries. These modifications by Defendants resulted in cigarettes that yielded very low levels of tar and nicotine when smoked by the FTC Method machine, but much higher levels of tar and nicotine when smoked by smokers. Defendants then used the low FTC tar and nicotine yields as a vehicle for their advertising campaigns portraying low tar cigarettes as less harmful. One prominent report prepared by the Institute of Medicine in 2001 cites the advertisements of Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, American Tobacco, Lorillard, and Liggett as examples of indications of health benefits related to particular low tar cigarette brands.

987. Defendants modified cigarette design in an effort to falsely reassure the public that smoking filtered or low tar cigarettes was safe, or at least safer than unfiltered or high tar products.

988. The design modifications to cigarettes undertaken by Defendants that resulted in the manufacture and marketing of so-called low tar products were undertaken at a time that Defendants recognized that smokers of filtered or low tar cigarettes would compensate by smoking more intensely in a variety of ways to preserve their intake of nicotine, and so smokers of these cigarettes would not substantially reduce either their intake of tar or their disease risk.

989. Defendants have increased the potency of the nicotine that "low tar/low nicotine" cigarettes contain by a variety of methods, including blending.

(a) R.J. Reynolds

990. A R.J. Reynolds document entitled "Kool: 1933-1980 A Retrospective View of Kool" depicted the following chronology of Defendants' deception regarding low tar cigarettes:

In 1955, the FTC, reacting to conflicting claims as to tar and filtration, has imposed 'Cigarette Advertising Guides' banning all mention of tar, nicotine and filtration 'when not established by competent scientific proof'. This put a stop to such claims in advertising. In July and August of 1957, the Reader's Digest published two articles with figures on tar and nicotine mentioning Kent by name. The August article, written with Kent's assistance was practically an ad for Kent. In 90 days, Kent's sales leaped from 300 million to 3 billion per month. This article broke the dike and set off the famous Tar Derby. Over the next 4 years, tar levels were drastically cut. Marlboro dropped from 34 mg. tar in 1957 to 25 mg. in 1958 and 19 mg. in 1961. . . . In mid 1960, the FTC called off the Tar Derby, rigidly prohibiting tar and nicotine claims. Some of the new low tar brands disappeared. Soon thereafter, the brands stopped reducing tar levels and, indeed, began to raise them. Kent, for example, went from 14 mg. in 1961 to 16 mg. in 1963 and 19 mg. in 1966. The FTC prohibition ended March 25, 1966 initiating a new phase in Hi-Fi development.

(b) Brown & Williamson

991. A March 4, 1982 interoffice memo discussing the extremely deceptive nature of the design of Brown & Williamson's Barclay cigarette and others like it, sent from J.H. Reynolds,

A.B. Norman, and J.H. Robinson to Dr. R.E. Morse (all R.J. Reynolds employees) stated:

The next generation of "Barclay competitors" will be spawned (indeed has already been spawned) in the minds of R & D and marketing people throughout the industry and its suppliers. This generation of products, or the next, could easily be products which will deliver NO "tar" or nicotine when smoked by the FTC method, and yet when smoked by humans essentially be unfiltered cigarettes. Such products could (and would) be advertized as "tar-free," "zero milligrams FTC tar", or "the ultimate low-tar cigarette", while actually delivering 20-, 30-, 40-mg or more "tar" when used by a human smoker! They will be extremely easy to design and produce. If there is any doubt that such products could be made, we will be happy to provide design sketches or prototypes of new or existing designs which will substantially accomplish this feat. Such cigarettes, while deceptive in the extreme, would be very difficult for the consumer to resist, since they would provide everything that we presently believe makes for desirable products; taste, "punch", ease of draw and "low FTC tar."

992. A Brown & Williamson document dated February 14, 2002 and entitled "Low Delivery Products and 'Lights' Descriptors" made the following acknowledgement: "Product design may influence smoker behavior."

(c) BATCo

993. A memo from BATCo's research and development group recommended that BATCo design cigarettes that would make it easier for smoker to compensate: "Irrespective of the ethics involved, we should develop alternative designs (that do not invite obvious criticism) which allow the smoker to obtain significant enhanced deliveries should he so wish."

994. A January 19, 1977 internal BATCo memo sent to Dr. C. Ian Ayres, BATCo Research Manager, D.J. Wood, BATCo Researcher, and others explained how compensation makes published smoke deliveries misleading:

Two cigarette brands, 'Now' (U.S.A.) and "Reemtsma No. 1', with very low deliveries of TPM and nicotine, have been smoked by subjects whose manner of smoking was monitored. The subjects

smoked these two brands with greater intensity than they smoked cigarettes of more normal delivery, taking larger puffs at more frequent intervals. From each brand, the subjects on average took more than twice the volume of smoke that was taken by a standard smoking machine. This emphasises the misleading nature of published smoke deliveries when dealing with cigarettes of this type.

995. An internal April 14, 1977 BATCo memo by P.L. Short, Manager of BATCo's Marketing Department, discussed BATCo's marketing plan describing a "planned approach to reduced deliveries, via research and product development" to "ensure that smoking satisfaction is achieved by franchise smokers within the range of smoker 'compensation' of the original product" and providing for "lowered-delivery spin-offs" of existing brands with deliveries "within the range of smoking satisfaction of the parent brand, via the mechanism of smoker compensation."

996. A September 21, 1977 letter from F. Haslam to P.L. Short, Manager of BATCo's Marketing Department, stated:

I have been concerned that the discussions on compensation and cigarette design should be taken a step further [i]t should now be possible to design a number of cigarettes which would have the same smoking machine delivery but different deliveries to the compensating smoker. Broadly speaking, this could be achieved by developing cigarettes with a knowledge of the smoker's response to such factors as pressure drop, ventilation, irritation, impact, nicotine delivery, etc.

997. A May 19, 1981 BATCo document by M. Oldman referencing a discussion relating to "machine v/s human smoking" stated: "It was agreed that effort should not be spent on designing a cigarette which, through its construction, denied the smoker the opportunity to compensate or oversmoke to any significant degree."

998. BATCo also understood "elasticity," i.e., making cigarettes (such as "Barclay") that would deliver low yields of tar and nicotine when smoked by the FTC Method machine, but

which were easily compensated for by the smoker. A document from C.C. Greig stated: "What would seem very much more sensible is to produce a cigarette which can be machine smoked at a certain tar band, but which, in human hands, can exceed this tar banding. Such is the case with Barclay."

(d) American Tobacco

999. An April 29, 1974 memorandum on American Tobacco letterhead from R.M. Irby, Jr., Manager of the American Tobacco New Products Division for Research and Development, to Virginius Byran Lougee, III, American Tobacco executive, and E.C. Cogbill, American Tobacco scientist, entitled "Compound W" (American's euphemism for nicotine) describes the company's successful efforts to increase the nicotine content of its cigarette tobacco, thereby increasing the nicotine-to-tar ration of its cigarettes:

Regular PALL MALL Red blend analyzing 1.95% nicotine . . . was treated with Compound W to increase nicotine in the blend by 19% . . . To make absolutely sure that the complete evaluation has been carried out at the desired nicotine level, the TC-22 blend will be modified with regular PALL MALL blend to yield an exact increase of 19% above the standard 1.87% nicotine blend. This is currently under way. . . LUCKY 100's blend was treated with Compound W to yield 2.58% nicotine; a 21% increase above the standard control of 2.13%. . . [with regard to stem tobacco] Unanimous that the increase in nicotine improves the taste and produces a less stemmy product.

(e) Liggett

1000.

[REDACTED]

[REDACTED]

[REDACTED]

(3) Defendants Have Disseminated Deceptive Public Statements and Advertisements Regarding Low Tar and Filtered Cigarettes

- (a) Defendants Both Knew and Intended That Consumers Perceived Their Claims Regarding Low Tar and Filtered Cigarettes to Indicate That Low Tar and Filtered Cigarettes Are Less Harmful, and Exploited This False Perception to Increase Their Cigarette Sales
- (i) Defendants Knew and Intended That Consumers Perceive Low Tar and Filtered Cigarettes as Less Harmful

1001. Consistent with Defendants' advertisements and other public statements portraying low tar cigarettes as safer, many smokers and potential smokers perceive low tar cigarettes as less hazardous than they do regular cigarettes. As stated by the Institute of Medicine in a 2001 publication:

When filtered and low-yield cigarettes were introduced into U.S. markets, they were heavily promoted and marketed with both explicit and implicit claims of reducing the risk of smoking. Even as data accumulated, albeit slowly, that these products did not result in much – if any – decrease in risk, consumers have continued to believe otherwise. . . . Consumer misunderstanding is explained in part by the ways in which these products are marketed [T]he tobacco companies have appealed to health concerns of smokers at least since 1927. Claims about tar and nicotine levels appeared as early as 1942.

1002. Surveys have shown consistently that a perception of reduced risk is one of the major reasons smokers choose low tar cigarettes. In a typical example, a 1998 national telephone

survey revealed that 58% of ultralight cigarette smokers and 39% of light cigarette smokers said that reducing risk was one of their reasons for their choice of cigarette. Twenty-three percent of individuals (smokers and non-smokers) in a recent survey believed that smoking low tar cigarettes lowers the risk of health problems.

1003. In a 1993 survey, 56% of smokers understood use of the term "low tar" as intended to convey relative safety compared to full flavor cigarettes. In a 1980 survey, 36% of low tar smokers thought their cigarette did not significantly increase the risk of disease over nonsmokers; and a 1987 survey showed that 46% of smokers of 6 mg. (FTC) or lower cigarettes believed they had reduced cancer risk compared with smokers of cigarettes with higher FTC tar yields.

1004. Surveys of smokers regarding their awareness of the difference between the FTC tar and nicotine ratings and what they actually get when they smoke a cigarette reveal that (1) smokers are not always familiar with the FTC rating, (2) they are aware of whether their cigarettes are "light" cigarettes or regular cigarettes, (3) people believe that "light" cigarettes deliver less tar and nicotine than regular cigarettes, and (4) people believe that regular cigarettes are more hazardous than "light" cigarettes.

1005. Defendants' internal research and attendant documents amply demonstrate that they knew that smokers generally have little awareness about the FTC tar and nicotine yields of the cigarettes they smoke, that smokers smoke low tar and filter cigarettes because they believe them to be less harmful, and that the industry promoted and exploited these beliefs to increase their own profits.

1006. TIRC/CTR. An August 26, 1958 letter from Clarence Cook Little, Scientific Director of TIRC, to Timothy Hartnett, Chairman of TIRC, indicated that the industry's statements of reduced tar and nicotine were perceived by the public as indications that these cigarettes were less harmful. Little's letter stated that the industry advertisements of the reductions in tar deliveries, in that they promised a reduction in health hazard, contained an implicit admission that cigarettes are harmful. Little went on to say that "[a]lthough this serious danger exists, I believe that it can and should be eliminated by prompt and unanimous action by the industry" in the form of a denial that cigarettes are harmful and a statement that the cigarettes and corresponding advertisements regarding filters and reduced deliveries are "in response to public demand and to nothing else."

1007. Philip Morris. A May 1976 study prepared for Philip Morris by The Roper Organization, Inc., titled "A Study of Smokers' Habits and Attitudes With Special Emphasis on Low Tar Cigarette" stated:

More people have switched brands in the past year, and the largest group of switchers have gone to low tars. Even among those who have not switched to a low tar brand, there is fairly high disposition among smokers to consider switching to one. This is probably attributable to the continuing concern over smoking and health, and this study shows that the smoking public is convinced that to the extent any brands are better for health, it is the low tar brands that are. . . Low tar brand smokers cite as the most liked characteristic of their brand . . . as compared with smokers of flavor filters, they say it is 'better for your health' and cite its 'more effective filter.' . . . Brands Thought Better For Health – The low tar brands have cornered opinion that to the extent any brands are better for your health, they are. . . Three in ten of all smokers said some brands were better for health than others, and almost half of the low tar brand smokers said this. . . Furthermore, it is the lower tar content of these brands that make people say they are better for your health.

1008. Studies commissioned for Philip Morris establish that they were well aware that advertising caused smokers to believe that brands bearing low tar brand descriptors such as "light" and "ultralight" were less harmful (although these smokers would not necessarily know the specific FTC tar and nicotine delivery of these cigarettes), and often smokers concerned about the health consequences of smoking switched to low tar brands instead of quitting. A January 1979 study prepared for Philip Morris by Goldstein/Krall Marketing Resources, Inc., entitled "A Qualitative Exploration of Smoker Potential for a New Entry in the Ultra Low Target Market Category" stated:

[W]ith respect to ultra low tar brands there are appear to be . . . particular additional motivations for smoking this type of cigarette [v]oluntary desire for a safer cigarette... [i]ncreasing awareness and concern about possible hazards of smoking [h]ealth problem forcing a change to a safer cigarette (as an alternative to not being able to quit) [p]eer and family pressure to smoke a safer cigarette (as an alternative to not being able to stop smoking) . . . mental commitment to do something about smoking habits. These ultra low tar smokers indicated that they are aware of the low tar levels in their brands and that they switched to them specifically because of advertising calling this fact to their attention (emphasis added) . . . There is also apparently the psychological satisfaction of smoking a safer cigarette. As a result of the feeling of smoking a safer cigarette some smokers reported that they are more compulsive now and feel freer to smoke. . . There appear to be two ways in which smokers finally end up smoking an ultra low tar brand. One way might involve an abrupt switch from a high tar brand because of immediate health concerns . . . The second route, which seems to be that taken by most of the smokers in these groups was this progressive step down to eventually the lowest level or category. As lower and lower tar brands become available, it would appear smokers are subject to advertising pressure and brand availability, and the opportunity for switching obviously occurs. . . Characteristics of ultra low tar smokers were: people who want to quit . . . more

interested in health. . . [T]hey also appear to be interested in the safest possible cigarette. . . Although many respondents in these groups said they had tried to quit smoking at some point in time, they do not appear to have cut down the number of cigarettes they are smoking. The only concession that has been made is the switch to an ultra low tar brand. These smokers seemed to be either resigned to the fact or satisfied that they will probably never quit smoking. In point of fact, smoking an ultra low tar cigarette seems to relieve some of the guilt of smoking and provide an excuse not to quit. All of these smokers expressed an awareness of a health hazard from smoking, but felt that they had alleviated some of this hazard by smoking an ultra low tar brand. They described these cigarettes as 'safer'. . . . With these justifications, there may be less of a compulsion to quit smoking (emphasis added) . . . When asked how they happened to switch to the brand they are now smoking many of the Carlton smokers cited advertising and tar and nicotine ratings. . . . When Carlton ads were shown in the groups, it was obvious that most respondents had seen them and were aware of the copy claims. It was these claims and other Carlton ads to which smokers referred prior to exposure and when discussing the fact that advertising had been one of the factors causing them to try the brand. This would seem to indicate that ultra low tar smokers are paying attention to and being attracted by the advertising. Respondents . . . appeared to react favorably to the Triumph ads. They said that 3 mg. tar was within the ultra low tar range implying that it represented a safer cigarette.

1009.

[REDACTED]

[REDACTED]

1010.

[REDACTED]

[REDACTED]

1011.

[REDACTED]

[REDACTED]

1012. A report prepared by Sun Research Corp. for Philip Morris to summarize the results of qualitative research that was undertaken to learn more about consumer perceptions of Merit Ultima, an ultra-low cigarette, examined "[r]easons for perceived benefits of smoking lowest brands." The first bullet point stated: "The two main reasons for smoking the lowest

brand were taste preferences and perceived health concerns." Many of the smokers who smoked Merit Ultimas had switched to a lower tar cigarette due to perceived health concerns.

1013.

[REDACTED]

[REDACTED]

Denise Keane, General

Counsel and Senior Vice President of Philip Morris, testified that Philip Morris has not conducted any research to ascertain consumers' awareness of the tar and nicotine levels of cigarettes that they smoke.

1014. In May 1996, at a meeting with the FTC, Philip Morris and other Defendants were referred to a January 1996 article by Joel Cohen concerning how smokers misinterpret brand descriptors and are unaware of the tar/nicotine levels of the cigarettes they smoke.

1015. Despite having been present at this May 1996 meeting with the FTC and having been given the information on the Cohen article concerning smokers' misinterpretation of brand descriptors, Denise Keane testified that she still had not read the Cohen article and was unaware of any research on smokers perceptions of brand descriptors.

1016. Despite all this information, in his deposition in this action on June 26, 2002, Steven Parrish, Senior Vice President of Corporate Affairs of Philip Morris Companies since 1995, claimed that brand descriptors are merely "something that can be a way for manufacturers to communicate . . . characteristics of taste and mouth feel, and things like that in the cigarette." Parrish testified that he has seen news reports, but not any actual research, about how smokers perceive brand descriptors. As of August 22, 2002, Geoffrey Bible, former CEO of Philip Morris Companies, claimed he had never been presented with any data as to how consumers actually

perceive brand descriptors. Nevertheless, he testified that he believes that they simply convey taste preferences.

1017. [REDACTED]

[REDACTED]

1018. R.J. Reynolds. An August 5, 1980 R.J. Reynolds internal memorandum from M. D. Shannon to Dr. W. M. Henly and Dr. R. A. Lloyd, R.J. Reynolds researchers, titled "Project HR" stated:

The HR Project has the mission of developing a new solo ULT ["Ultra Low Tar"] product in the 3-5 mg. "tar" range. . . . Concepts, appeal, and advertising ideas have been evolved over a period of time as a result of in-depth, one-on-one interviews with ULT smokers. . . . Very health conscious – These smokers are well aware of the smoking and health controversy and have switched to ULT products in an effort to decrease "tar" intake. Many of these smokers are victims of pressure from peers and loved ones to quit or reduce smoking. Therefore, they smoke ULT brands to "get people off their backs." They are referred to as the "get off my

backers." Feelings of guilt about smoking are very strong in this group of smokers. . . . The HR target no longer enjoys smoking Many would like to quit smoking but cannot. . . . Generally, the HR target consumers . . . do not feel good about themselves. . . . [S]everal concepts were developed to appeal to these smokers: 1. To convince the HR target that the new brand represents a payoff or reward for his forced decision to sacrifice by going down in "tar" level. The theme is internal reward, a pat on the back, positive reinforcement, increased self-esteem. 2. To convince the HR target that the new brand is a reflection of his rational, sensible decision to switch to a low "tar". The idea here is to appeal to his intellect, i.e. the intelligent choice. Again an attempt is made to make him feel better about smoking. . . . Ads were developed by NPI (New Product Insights) to address these concepts and present them in a manner that would be positively received by the target audience.

1019. An April 1982 research study entitled "Vantage and Merit Smokers" prepared by Social Research, Inc., for R.J. Reynolds stated:

Both Vantage and Merit smokers have similar early smoking histories . . . switching to lighter cigarettes to relieve physical symptoms and as an acknowledgment of increased concerns about alleged health hazards. By definition of their brand preference, both smoker groups have moved to a brand that is lower in tar and nicotine. . . . (A female Vantage smoker, 30-40): "They are lighter, lower in tar and nicotine. . . . They are satisfying like a full-tar cigarette, but they are better for my health. . . . The filter seems strong and effective as a trap for 'harmful' ingredients." It is intriguing enough to prompt the would-be smoker to tear the filter apart to measure its effectiveness through discoloration. The brown color contributes to this notion. Vantage smokers believe that the filter itself is strong enough to catch these impurities and that the hole structure is such that they will not see so much of the resulting discoloration. These ideas make them think the end product is a milder and more "healthful" smoke. . . . (Quoting a male Vantage smoker 41-49): "When Vantage came out, I started thinking about low tar and nicotine. . . . I cut the Vantage filter apart to see how much it was catching and decided to buy them." (Quoting a female Vantage smoker 21-24): "I like the filter because there's a lot of it, like it's filtering out a lot of the harmful things,

like the tar."

1020.

[REDACTED]

[REDACTED]

1021. An internal memorandum dated November 7, 1988 entitled "Premier – Concept and Product Reactions," summarizing the results of interviews and focus groups conducted to evaluate consumers' responses to R.J. Reynolds's new "smokeless" cigarette, Premier, was sent from Page Callahan to Jan Jones, two Philip Morris employees. The report illustrated that "perceived health benefits" are a critical factor in attracting low tar smokers:

Although there were favorable reactions . . . the smokers . . . did not think that this "smokeless" cigarette offered them any personal "health benefits". This seemed to be a big disappointment to these smokers. . . . [W]e presented Phase III smokers with an additional concept as follows: "This new cigarette heats rather than burns tobacco, changing the composition of cigarette smoke. There is virtually no smoke coming off the burning end of the cigarette, and the exhaled vapor (unlike conventional smoke) dissipates very quickly after exhaling. The heating process substantially reduces many of the controversial compounds of tobacco-burning cigarettes. The product does not burn down, and lasts as long as a king size cigarette." This concept was derived from RJR's advertising . . . Note that there is no specific statement regarding "health benefits." In other words tar, nicotine, carbon monoxide and the Surgeon General's warning are not referenced. [This fact notwithstanding] . . . some smokers (about 1 out of every 5)

immediately associated potential "health benefits" with this presentation of the concept. . . . Our impression is that there is a group of smokers for which the social positives of this concept would give them enough incentive to give the product a fair trial. However, there still exists a segment of smokers who are not concerned with the social aspects of smoking and who would need additional incentives such as perceived "health benefits" . . . before they would be willing to consider this concept.

1022. Brown & Williamson. A Brown & Williamson document entitled "The Growth of Menthols 1933 to 1977" stated: "During the "'tar" derby,' menthol styles were perceived as healthier, low tar smokes due to the quasi-medical health claims in menthol advertising."

1023. A July 19, 1976 Brown & Williamson internal memorandum from E.A. Willets, III to G. T. Reid entitled "VICEROY Advertising Objectives and Creative Strategies 1936-1975" demonstrates that the industry's deceptive advertisements portraying their low tar cigarettes as less harmful were effective at misleading consumers. The memorandum noted that from 1950 through the 3rd Quarter of 1952 (following publication of the Reader's Digest article in January 1950), Viceroy's "objective and creative strategy" was to "[a]ttract smokers of competitive non-filter brands by promising health benefits, supported by published research by independent body, because of VICEROY's filter." The memorandum's "evaluation" was that of a "[p]rompt and effective exploitation of an advertising windfall" and a "[s]tronger commitment to high filtration, low risk positioning." The memorandum noted that, in 1953-1954, Viceroy's advertising campaign slogan was "'VICEROY's double barreled health protection' and 'Better Your Health,' with the 'objective and creative strategy' being to '[a]ttract smokers of all other cigarette brands by promising superior health protection because of more effective filtration from both a new

filter and a longer length." The memorandum concluded that "[t]hese two product changes firmly positioned VICEROY as a high-filtration, healthier cigarette and attracted smokers in droves." (Emphasis added.)

1024. A 1967 Brown & Williamson advertising and marketing strategy for high-filtration/low tar products describes Brown & Williamson's marketing strategies to "capitalize" on smokers' perception that low tar cigarettes are less harmful by portraying them as such:

- (Vanguard strategy): "To capitalize upon a prevalent smoker desire to lessen the health risk involved in his smoking via a switch to a low tar cigarette Advertising Objective - Communicate a dual smoker benefit: low tar and satisfying taste."
- Modified LIFE "Marketing Strategy - To fully capitalize on health vs. cigarette smoking publicity and publishing of tar/nicotine data by marketing LIFE as the lowest tar cigarette in the filter 85 segment."
- Filter 70's "Marketing Strategy - To capitalize on smoker concern of 'smoking too much' by offering a means for reducing smoking without cutting down on number of cigarettes smoked. . . . Advertising – Filter 70's would offer smokers the opportunity to smoke up to one-third less (shorter tobacco section), but they can light up as often."

1025. An August 1967 Brown & Williamson document entitled "A Psychological Map of the Cigarette World" stated that "PEOPLE WHO SMOKE FILTER CIGARETTES . . . ARE MORE CONSCIOUSLY IN CONFLICT ABOUT SMOKING THEY CAN'T COMPLETELY ENJOY SMOKING BECAUSE THEY KNOW IT IS NOT HEALTHY. . . . THEY MAY BE RECEPTIVE TO ADVERTISING WHICH HELPS THEM ESCAPE FROM THEIR INNER CONFLICTS ABOUT SMOKING."

1026. A 1969 marketing document from Brown & Williamson's files prepared by a

consultant for Imperial Tobacco, the sister company of Brown & Williamson, stated that the smoker "seeks a new covenant between himself and the tobacco industry" and has "trust" that the industry "is going to provide him with a product that he can enjoy without fear of physical or psychological reprisal."

1027. An October 21, 1971 Philip Morris document acknowledged that it "was abundantly clear" that manufacturers in the United States, and Brown & Williamson in particular, "are concentrating on the low TPM and Nicotine segment in order to create brands with distinctive product features which aim . . . to reassure the consumer that these brands are relatively more 'healthy'" than regular full-delivery cigarettes. "Hence B & W is devoting its efforts entirely to the Hi-Fi ["high filtration"] segment, and its two major projects . . . demonstrate this strategy."

1028. A September 1974 Brown & Williamson marketing research study entitled "The 'New' Smoker" which examined the "Behavioral Factors" of new smokers, concluded that new smokers are "mis-informed on cigarette strengths." The study also concluded that new smokers' concerns about health were "evident" and that with regard to long-term concerns, new smokers believed that the pleasure outweighed the risk, that they believed they did not smoke enough to be dangerous, that they would like to quit "someday," and that they were relying on science to improve the situation. The study concluded that new smokers believed that low tar cigarettes were "better for you."

1029. A 1975 Brown & Williamson document entitled "Viceroy Marketing Strategy" identified the "Problem Advertising Must Solve": "[A]dvertising must . . . cope with consumer

attitudes about smoking, providing either a rationale or a means of repressing the health concern."

1030. A Brown & Williamson November 29, 1976 memo from F.E. Latimer to B.L. Broecker and M.J. McCue, all Brown & Williamson marketing employees, represented the role of cigarette advertising as allaying smokers' fears of the health consequences of smoking:

[B]ecause such large numbers of the institutions and leaders he believes in are against smoking, the average smoker often seeks self-justification for smoking. Good cigarette advertising in the past has given the average smoker a means of justification on the two dimensions typically used in anti-smoking arguments. . . . All good cigarette advertising has either directly addressed the anti-smoking arguments prevalent at the time or has created a strong, attractive image into which the besieged smoker could withdraw.

1031. A January 1977 Brown & Williamson document stressed that health reassurances are the most important factor in cigarette advertising: "The fundamental long term trends in the business are for smokers to move gradually to products that represent benefits of 'health' and modernity. . . . Successful advertising in the cigarette business is achieved by establishing a brand image based on product benefit that fulfills consumers' needs for taste, 'health,' and modernity."

The document went on to state, quoting an earlier 1967 study:

Cigarette brand switchers have two major roads to follow: either they go toward health concerns or they go toward enjoyable, light and mild experience. . . . Some few older brands have a nearly complete clinical personality. Kent and True are the most prominent." . . . "Health": In our opinion, this is by far the most important factor and trend in the market [in 1976]. All major shifts in smoking habits seem to be a function of "health" concerns, as they pose a deep psychological question that every smoker must somehow answer. The manifestation of "health" concerns can be seen in the filter revolution of the 1950's, the emergence of menthol, as well as new hi-fi's in the 1960's and today. . . . Once

filters were established as "healthy," Marlboro and Winston dominated the market based on taste. Today we see a new evolution of this pattern where taste-oriented brands in the hi-fi ["high filtration"] segment are successful (e.g., Vantage and Merit), capitalizing on the compromise of taste and low tar. . . . Profits can be made on single focus products, but the real 'action' is in products that deliver, or are perceived to deliver, taste while representing the most reasonably "safe" product available. . . . [T]he hifi market [with the introduction of Now and Merit] has grown to nearly 20% of the market by the end of 1976 from 16% at 1975 year end. . . . In sum, the dynamics of "health" and modernity trends will be dominant. The smoker appears ready to make another major shift, losing gratification and obtaining a safer product, to a new generation of products with single digit numbers. . . . Some smokers will seek justification (rationalization) for staying with a full taste brand, others will move on to the continuing compromise of less satisfaction while continuing to smoke.

1032. A July 25, 1977 Brown & Williamson Internal Marketing Study entitled "Low 'Tar' Satisfaction, Step 1 Identification of Perceived and Underperceived Consumer Needs" recited the percentage of starters and quitters from 1969-1976 and lamented that "as the dynamic proportion of quitters continues to be larger than the proportion of starters, actual smoking incidence has declined about ten percentage points over the last ten years. . . . Increases in per capita consumption are assumed to correlate with lowered 'tar' delivery as well as other factors. . . . HEALTH REASSURANCE: Almost all smokers agree that the primary reason for the increasing acceptance of low 'tar' brands is based on the health reassurance they seem to offer. . . . It must be assumed that Full Taste smokers come down to 'low tar' expecting less taste . . . [t]hey are willing to compromise taste expectations for health reassurance." This example shows both that Defendants did have information in their files confirming that smokers perceived low tar cigarettes as healthier and that defendants intentionally designed their advertising and

marketing to take advantage of this perception.

1033. A July 2, 1982 Brown & Williamson report authored by J. Kendrick Wells, Brown & Williamson Assistant General Counsel, detailed his opinion that Brown & Williamson should respond to attacks on low delivery cigarettes with a far-reaching campaign of misinformation:

What Are the Obstacles/Enemies of a Swing to Low "Tar" and What Action Should We Take?: B&W will undertake activities designed to generate statements by public health opinion leaders which will indicate tolerance for smoking and improve the consumer's perception of ultra low "tar" cigarettes (5 mg. or less). The first step will be the identification of attractive scientists not previously involved in the low delivery controversy who would produce studies re-emphasizing the lower delivery, less risk concept. Through political and scientific friends, B&W will attempt to elicit from the administrative and legislative branches of the federal government, and perhaps voluntary health groups, statements sympathetic to the concept that generally less health risk is associated with ultra low delivery cigarette consumption. The program is designed to produce statements of sufficient news interest to reach the public through the media. In addition, B&W would seek to generate spontaneous mainstream media articles dealing with component deliveries, much as the old Readers Digest articles. . . . B&W will urge the industry to sponsor research in the ultra low delivery cigarette area which turns the principles used against the industry to positive use. . . . Research should be undertaken to show the extent and variety of smoking behaviors which would significantly alter "tar" delivery. . . . Industry positions favoring the low delivery cigarette can be effectively presented, but must be carefully structured.

1034. An internal March 25, 1983 Brown & Williamson memo from A. J. Mellman, a Brown & Williamson employee in marketing, to R.A. Blott, Brown & Williamson Senior Vice President of Domestic Marketing, regarding current cigarette project ideas stated as follows: "KOOL maintained a three share level for over 30 years (through mid-60's) while positioning itself as a specialty cigarette to be smoked only for remedial or medicinal purposes. Product Implications: Develop a cigarette combining menthol with eucalyptus and position it to be

smoked when one has a cold." The fourth project idea was to "Improve health aspect: Anything that can be done to decrease the risks associated with cigarettes is a positive to most consumers."

1035. A March 27, 1985 Brown & Williamson document that E.T. Parrack, Jr., Brown & Williamson's Vice President of Domestic Marketing, sent to Thomas E. Sandefur, Jr., Brown & Williamson's CEO, stated that "[h]ealth reassurance" is one of the "'rational' benefits" that have been grafted on to the two "basic benefits" that cigarettes have always been offered to consumers. The two basic benefits are: "physical smoking satisfaction" and "Emotional (image/social) reinforcement: 'The me I want to be.'" After superior product and brand imagery meeting specific consumer emotional needs, the third strategic priority was exploiting rational benefits.

1036. On June 17, 1992, Mark Kovatch, Brown & Williamson Vice President of Trade Marketing testified that, from the 1990s to present, Brown & Williamson has studied switching behavior. In June 1992, Kovatch wrote that cigarette smokers are highly loyal, but over 20% are in motion, including quitters and restarters. According to Kovatch, the second motivating factor to switch brands, keep smoking, or begin smoking after quitting, is tar level. Consumers think in terms of segmentation descriptors of lights, ultra lights because cigarette advertising educates them on various levels of products and what they think they deliver.

1037. On February 25, 1999, Brown & Williamson started a campaign identifying Carlton cigarettes as Ultra Ultra Light, including packs stating "1 mg.," and used the slogan "Isn't it time you started thinking about number one." Mark Smith, Brown & Williamson Director of Public Affairs, agreed in his deposition in this case that the "number one" referred to the one

milligram of FTC tar and that the double meaning meant think about your health. In her deposition, Karen Brotzge, Director of Brown & Williamson's Marketing Strategy and Development, analogized the ultra-light reference in the advertisement to low fat messages in foods, saying: "They [customers] look at fat grams and calories."

1038. In sharp contrast to the documents detailed above, in her deposition on June 20, 2002, Susan Ivey of Brown & Williamson testified that Brown & Williamson has "never advertised that lights are a safer cigarette." Nonetheless, Ivey also acknowledged the probability that "light" brand descriptors are perceived as healthier: "I think [Brown & Williamson] customers should look at lights as a descriptor in the context of lighter taste and in the context of lower deliveries than the fuller flavor alternative. . . . [D]o some people perceive them as healthier? Probably." Ivey also acknowledged that, while Brown & Williamson "[c]ertainly [has] the capacity to do the inquiry" as to whether a percentage of consumers choose lights because they perceive a health benefit, Brown & Williamson has not done any such research.

1039. BATCo. An internal April 14, 1977 BATCo memo by P.L. Short, Manager of BATCo's Marketing Department, describing BATCo's marketing plan, provided that "[a]ll work" will be "directed toward providing consumer reassurance about cigarettes and the smoking habit. . . . provided . . . by claimed low deliveries, by the perception of low deliveries and by the perception of 'mildness.' Furthermore, advertising for low delivery of traditional brands should be constructed in ways so as not to provoke anxiety about health, but to alleviate it, and enable the smoker to feel assured about the habit and confident in maintaining it over time." The report notes that the following "tactics" were developed at two "Marketing in the 80's" conferences in

1976 and 1977 to reassure smokers with health concerns using "pressure groups" that Defendants could exert influence over, including members of the media and the medical community:

B. TACTICS The main objective for all tactics on publicity is directed towards achieving reassurance amongst a variety of "publics", including smokers particularly, in the face of increasing social unacceptability of smoking. A few options were outlined . . . following the October conference. . . . [p]articular reference was made to the utilization of "pressure groups" whom tobacco manufacturers could influence, to bring favourable opinion to bear upon the industry. These include: . . . c) [s]uppliers/advertising and research agencies/the media . . . e) [f]avourable medical opinion where it exists.

1040. A November 11, 1977 letter from C.B. Dodwell of BATCo to companies associated with BATCo and other BATCo employees stated that Terry Hanby would begin working on "Research into Smoking & Health reassurance," and "will be concerned with the development of central guidelines for consumer reassurance in matters of Smoking & Health."

1041. An August 5, 1980 BATCo document signed by J. Kendrick Wells, III, Brown & Williamson Assistant General Counsel, acknowledged that indications by the tobacco companies that their low tar products were less harmful could lead to legal liability, because smokers would likely rely on this representation: "Statements by a manufacturer that certain cigarettes may be smoked with reduced or zero health risk could constitute an express warranty. A plaintiff who followed the representation and then got lung cancer might have a stronger case because the defense of voluntary smoking could be eliminated."

1042. An April 1982 document entitled "Conference on Marketing Low Delivery Products: January 1982" stated: "The BATCo.'s [sic.] Board policy stated in the Market

Expansion document is to lead the industry in the trend towards lowering deliveries. . . .

[C]onsumers will probably believe that lower deliveries mean less 'risky' products."

1043. American Tobacco. A "1969 Survey of Cigarette Smoking Behavior and Attitudes" performed for American Tobacco illustrates Defendants' efforts to have their cigarettes perceived by consumers as the least harmful. The survey contained the following questions: "What brand or brands of cigarettes come to mind when I say: Is safest to smoke? Is most effective in eliminating the things that are bad for you? Can prevent cigarette cough? Is best for people who are just starting to smoke regularly?" The survey was performed on age sixteen plus, and included data indicating that at age fourteen, 60% of boys who would become smokers had smoked their first cigarette.

1044. Lorillard. A Lorillard 1964 Position Statement indicated that Lorillard was the pioneer in high filtration cigarettes in response to the perceptions of its customers that smoking is detrimental to health, rather than because Lorillard accepted that cigarette smoking is detrimental to health or wanted to reduce the detriment to health caused by smoking.

1045. An August 31, 1964 document by R.F. Kieling, Director of Marketing Research for Lorillard, sets out the target for Kent marketing as follows:

Segment B, the social conformists, represents the prime potential market for development of Kent's share. . . . Compared with the rest of the market, Segment B is less concerned about smoking enjoyment and more concerned about the health aspect of cigarettes. He cares particularly about a cigarette's filter . . . and its association with health. . . . Type B is . . . most likely to sacrifice some of the enjoyment of smoking in the interest of health, about which he is highly concerned. These requirements appear to be compatible with Kent's current image.

1046. A presentation given to Lorillard by a marketing research consultant entitled "Cigarette Advertising 1974-1975" showed that several of the respondents indicated that Lorillard's "Quit or smoke True" ads indicated that True cigarettes are "LESS HARMFUL/BETTER FOR YOU."

1047. Lorillard was well aware in 1976 that consumers perceived its low tar brands as less harmful. A December 1976 management report of marketing research prepared for Lorillard by The Nowland Organization stated: "Health concerns are the usual reason for switching to a low T&N brand. Such cigarettes are 'better for you' . . . less likely to cause serious problems. . . . Those who smoke low tar and nicotine cigarettes generally do so because they believe such cigarettes are 'better for you.'"

1048. Liggett. Liggett markets low tar discount brands. However, according to the president of Liggett's Northern Sales Business Unit, the company does not do any market research to determine how its marketing of those low tar brands affects consumers.

1049. Despite being the Vector executive with responsibility for marketing the Omni brand, James Taylor testified that he had "no idea" what the company did to research what conclusions consumers might draw from the Omni marketing. [REDACTED]

[REDACTED]

(ii) Defendants' Advertisements for Light Cigarettes Were Intended to Convey Reduced Harmfulness, Not Lighter Taste

1050. Defendants have long marketed their low tar products for their alleged

comparative or absolute health benefits, not for their "lighter" taste. Indeed, for decades, the companies treated the concepts of taste and low tar as distinct, claiming that their products tasted good despite, not because of, the lowered FTC tar and nicotine levels. Defendants' own internal documents, marketing campaigns and other public statements demonstrate this.

1051. Philip Morris. A 1974-1975 ad for Philip Morris's Benson & Hedges Multifilter brand distinguished between great taste and low tar, acknowledging that its claims of low tar delivery were intended to indicate health benefits: "Today people not only want a great tasting cigarette, but one that's low in 'tar' and nicotine. Nothing's simple anymore. . . . we've managed to lower the 'tar' and nicotine and still give you a cigarette with full rich flavor for you to enjoy."

1052. A Philip Morris 1976 advertisement for Merit cigarettes (a brand that was heavily marketed as low tar from its introduction) stated: "New Low Tar Entry Packs Taste of Cigarettes Having 60% More Tar."

1053. In May 1978, Philip Morris placed an ad in various magazines for Merit cigarettes entitled "Best Move Yet," which stated that Merit's "ability to satisfy over long periods of time could be the most important evidence to date that MERIT is what it claims to be: The first real alternative for high tar smokers."

1054. A 1979 Philip Morris Merit advertisement appeared in national magazines entitled "Merit Taste Eases Low Tar Decision." The advertisement further stated: "'Enriched Flavor' tobacco proving real alternative to high tar smoking. . . . Confirmed: Majority of high tar smokers rate MERIT taste equal to – or better than – leading high tar cigarettes tested! Cigarettes having up to twice the tar. [Merit's] ability to satisfy over long periods of time could be the most

important evidence to date that MERIT science has produced what it claims: The first real alternative for high tar smokers."

1055. In 1979, Philip Morris placed an ad for Merit cigarettes entitled, "Merit Taste Eases Low Tar Decision." The ad stated that Merit's "ability to satisfy over long periods of time could be the most important evidence to date that MERIT science has produced what it claims: The first real alternative for high tar smokers."

1056. A January 1979 study prepared for Philip Morris by Goldstein/Krall Marketing Resources, Inc., shows that consumers perceived light cigarettes as a compromise on taste in order to smoke cigarettes that they believed delivered reduced tar and nicotine: "There appears to be a concept involved that might be called 'limiting'. They have moved to limit their tar and nicotine intake. At the same time they have accepted a limit on taste."

1057. On or about 1994, Philip Morris created an ad for Merit cigarettes stating: "Yes you can! You can switch down to lower tar and still get satisfying taste. You've got MERIT." The ad depicted the low tar rating on various Merit brands.

1058.

[REDACTED]

[REDACTED]

1059. A Philip Morris " no bearing the handwriting of Denise Keane, Philip Morris General Counsel, indicated that "use of descriptors [is] not consistently tied

to strength of taste in advertising." It also refers to "POL [product opinion laboratory] data on consumer perception of descriptors." This document shows Philip Morris's recognition that brand descriptors are not linked to taste strength, despite the company's insistence to the contrary.

1060. R.J. Reynolds. A June 25, 1972 R.J. Reynolds Vantage Menthol brand cigarette ad specifically conveyed the message that, due to their low tar, Vantage cigarettes are less harmful and stated that Vantage cigarettes taste as good as high tar cigarettes despite their low tar: "Vantage gives you real flavor, like any high 'tar' and nicotine cigarette you ever smoked, without the high 'tar' and nicotine. And since it is the high 'tar' and nicotine that many critics of cigarettes seem most opposed to, even they should have some kind words for Vantage."

1061. A December 16, 1988 R.J. Reynolds marketing presentation stated that: "For a successful product the perceived health benefit must balance any sacrifice that must be made in terms of taste, satisfaction and traditional smoking pleasures."

1062. Brown & Williamson. A September 1974 Brown & Williamson marketing research study entitled "The 'New' Smoker" examined the "Behavioral Factors" of new smokers and concluded that smokers believed that low tar cigarettes were "better for you" but had "no taste."

1063. A July 25, 1977 Brown & Williamson internal marketing study stated: "It must be assumed that Full Taste smokers come down to 'low tar' expecting less taste . . . [t]hey are willing to compromise taste expectations for health reassurance."

1064. American Tobacco. A copy of a 1964 American Tobacco advertisement for Carlton cigarettes (published in Time and Newsweek) produced from American Tobacco's files

bore a handwritten underscore on the following portion of the advertisement: "Everything about Carlton is selected and crafted to produce this one result: A cigarette that is low in 'tar' and nicotine—yet high in smoking pleasure." This advertisement illustrated that American Tobacco viewed tar as distinct from, and potentially antithetical to, "smoking pleasure." A handwritten notation on the document stated: "underscored copy is considered very good."

1065.

[REDACTED]

[REDACTED]

1066. A 1976 advertisement for American's Pall Mall Extra Mild cigarettes (published in periodicals including the New York Post) featured the heading "De-tarred but not de-tasted."

1067. Lorillard. Several 1974-1975 Lorillard Kent ads distinguished between great taste and filtration, showing that filter cigarettes were marketed to indicate health benefits, not improved taste:

- "Come for the filter. You'll stay for the taste."
- "C'mon. Come for the filter. You'll stay for the taste."

1068. Liggett.

[REDACTED]

[REDACTED]

(iii) Defendants' Deceptive Marking of Low Tar Brands and Filtered Cigarettes as Less Harmful Resulted in Increased Sales

1069. The Cigarette Company Defendants' public statements, advertisements, and other marketing activities for low tar and filtered cigarettes were intended to convey a health benefit.

Defendants expected that these deceptive representations would result in increased sales, and they did. This fact is demonstrated by Defendants' own documents, a representative sample of which is provided below.

1070. Philip Morris. An April 23, 1958 Philip Morris document by J.E. Lincoln discussed Philip Morris's plan to turn planned removal of benzo(a)pyrene (one harmful component of cigarette smoke that had gotten recent attention in the press) from their cigarettes into a marketing campaign: "BENZPYRENE [sic] MUST GO. . . . Other ingredients that might be harmful must also go, but benzpyrene should go first because it is the one that seems to be under most suspicion at the moment. . . . I think we could exploit it without ever saying a word about it in paid advertising. One article in the Journal of the American Medical Association would start the ball rolling." He proposed the following ad campaign:

We would go on to describe more or less truthfully the dramatic story of our efforts to catch up and stay caught up in the high filtration field . . . close by pledging to Parliament (Marlboro) smokers that from now on they could be assured that Parliament (Marlboro) would immediately bring them any tar and nicotine reducing innovations that were consistent with good smoking and that we would do this no matter how much effort and expense were required. . . . the attempt would be made to build an image of the brand as a brand that was made and sold by people who were genuinely concerned about the health of their customers.

In sharp contrast to this ad image, the document notes that, if benzpyrene removal causes any "disturbance" in the taste or character of the cigarette, removal of benzpyrene should not occur in Philip Morris's established brand cigarettes, but "would have to be tried on a new brand."

1071. A June 1966 Philip Morris report prepared by Philip Morris marketing researcher Myron E. Johnston, Jr. for Helmut Wakeham and others indicates that Philip Morris's goal in

marketing a "health cigarette" was not to reduce the harm to smokers, but to develop a cigarette that gave the appearance of being less harmful. This is illustrated by the fact that Philip Morris only planned to market these cigarettes in response to a "health scare" related to smoking, as this customarily increased sales: "I have accepted as a working definition of a health cigarette the definition commonly used in the Research Center: All cigarettes about which health claims have been made or implied My recommendation is that we not introduce a new health cigarette unless there is another health scare or additional restrictive legislation is passed. . . . [O]ur entry should be determined by the form of the scare or legislation."

1072. A January 23-24, 1984 report by Daniel M. Ennis, John E. Tindall & Lisa Eby, all employees in Philip Morris's Product Evaluation Division, entitled "Product Testing Short Course," after reciting how public dissemination of reports linking disease affected sales, noted that lowered tar was Defendants' usual response to adverse publicity. It noted that smokers' "susceptibility to our traditional response to anti-smoking publicity – lower tar – is . . . decreasing."

1073. A March 20, 1984 Philip Morris marketing report entitled "The Cigarette Consumer" stated, with regard to brand switching, "[h]istorically, motivation has come from health issue. People willing to stick with lower tar because they feel are doing themselves a favor. Most successful new brands have had low tar/health motivation: Merit."

1074. Philip Morris's 1994-1998 Plan Overview stated: "If ultra low tar segment growth accelerates, we will launch Marlboro Ultra Lights to prevent Marlboro from losing smokers. Marlboro Ultra Lights will reinforce Marlboro's appeal among tar 'conscious' Lights smokers and

improve Marlboro's ability to retain smokers as they age."

1075. R.J. Reynolds. An internal 1975 R.J. Reynolds memo, under the heading "UPDATED REVIEW AND ANALYSES OF 1974 COMPETITIVE BRAND DATA" stated: "The VANTAGE and Kent 100 brands performed better than expected according to the correlation. This was most probably due to the low 'tar' and nicotine image."

1076. An internal February 11, 1975 Brown & Williamson memo by "J.V.B." commenting on R.J. Reynolds Vantage ads, stated that R.J. Reynolds's ad ("Why do you smoke? With what you've been hearing about smoking these days, you probably wonder sometimes why you smoke at all.") was "address[ing] the health issue for competitive purposes."

1077. An August 19, 1976 R.J. Reynolds document entitled "New Product/Merchandising Directions" indicated that "'Numbers' Products," i.e., those with low FTC tar and nicotine numbers, serve to "assuage" smokers' worries about the harmfulness of smoking, stating that the "'worrier' segment of the market (17% of smokers are so classified). . . . seek products with tangible/visible features to assuage their 'concern' about smoking. 'Numbers' products have a growing appeal to these smokers. Products in the 1-6 mg. 'tar' range will continue to build successful long-term franchises (e.g., Carlton's growth rate, NOW's immediate acceptance . . .)."

1078. Brown & Williamson. A September 21, 1976 Brown & Williamson document by Robert L. Chambers entitled "U.S. Cigarette History" acknowledged that a perceived health benefit results in an increase in sales: "A Readers Digest article on the dangers of cigarette smoking, coupled with KOOL's quasi-medical appeal of less throat irritation, helped boost

KOOL's share to 3.0% in 1952."

1079. A June 21, 1977 letter on Brown & Williamson letterhead from D.A. Litwin, Brown & Williamson Assistant Brand Manager in marketing, to Andy Millar, attorney for the tobacco industry, included a chart illustrating Brown & Williamson's recognition of a market share for "Taste with implicit health benefit," "Taste with contemporary health benefit," and "Explicit health benefit" cigarettes. It was anticipated that these market segments with health claims would increase market share.

1080. A July 19, 1978 Brown & Williamson memo from E.A. Willets, III to G.T. Reid and V.C. Broach, all Brown & Williamson brand marketing employees, entitled "VICEROY Advertising Objectives and Creative Strategies 1936-1975" stated that, prior to 1942, the strategy and corresponding objective were to "[a]ttract smokers . . . by promising mild, clean smoke and health benefits because of the filter." Objectives for the 1942-1946 Viceroy advertising were to "[a]ttract smokers . . . by (implied) promising general health/taste benefits because of filter."

1081. As explained in a June 11, 1985 internal Brown & Williamson document, in 1946, "[a] comprehensive sampling plan [for Viceroy cigarettes] among dentists to secure their recommendation was started. Sales responded immediately even though the media budget was not increased until 1948"

1082. Brown & Williamson's Viceroy advertising objectives in 1950 were to "[a]ttract smokers . . . by promising health benefits."

1083. A June 11, 1985 internal Brown & Williamson document explained that "[t]he January 1950 issue of Reader's Digest featured an article, "How Harmful Are Cigarettes," that

mentioned the value of filters. Within a week [of that article], VICEROY advertising headlined 'Reader's Digest tells why filtered cigarette smoke is better for your health.' Sales increased from 700 million in 1949 to 1.2 billion in 1950."

1084. The 1953-1954 Viceroy slogans were "VICEROY's double-barreled health protection" and "Better Your Health." The objective was to "[a]ttract smokers . . . by promising superior health protection." This campaign "firmly positioned VICEROY as a high-filtration, healthier cigarette and attracted smokers in droves."

1085. A June 11, 1985 internal Brown & Williamson document explained that, in 1953, several things "combined to push the demand for VICEROY far beyond production capacity," most notably "the new filter" and "greatly increased public attention to the 'Health aspect' of smoking. VICEROY advertising exploited this to the fullest extent as 'double-barreled health protection' copy, which . . . was backed up with factual evidence of the nicotine and tar reduction offered by VICEROY. . . . Sales went to 6.0 billion in 1953 even though the brand . . . could not begin to supply the demand."

1086. The campaign from 1955-1956 was again "promising superior health protection." Similarly, Brown & Williamson's objectives for the 1957-1961 Viceroy ads were to "[a]ttract smokers . . . promising . . . implied health benefits because of filter" and "with substantial health benefit implications, because of blend and filter." Nearly each of these promises of health benefits resulted in a substantial increase in sales of Viceroy cigarettes.

1087. A 1978 Brown & Williamson document entitled "Purite Filter" acknowledged that the "common area of leverage" of successful brands was implied health benefits due to low tar:

The move to hi-fi cigarettes i[s] continuing, motivated by consumers who demonstrate personal concerns towards smoking in either the health, social areas, or both. To capitalize on these perceived consumer needs, three successful positionings have emerged in hi-fi: health reassurance, taste reassurance, and social acceptability. All three positionings use low "tar" as a common thread. . . . To stem the continued decline in smoking incidence, the industry must rapidly move to a point where it can address cigarettes in a totally positive light The modern hi-fi segment . . . has been growing dramatically over the last five years. This growth has been spurred by the consumer desire for health protection, as achieved through particulate matter reduction and the industry response in offering low "tar" brands with heavy marketing support. . . . Hi-fi brands . . . are finding inroads into the marketplace increasingly difficult. Although the hi-fi segment is continuing its rapid expansion to a projected 50% by 1982, only three positionings are demonstrating vitality and durability among the freestanding low "tars": low "tar"/implied health, i.e. Carlton, True; extra flavor, i.e. Merit; social acceptability, i.e. Vantage. . . . Low "tar"/implied health is the common area of leverage with all these entries.

1088. BATCo. A 1972 BATCo memorandum explained that health reassurances usually result in increased sales: "Over the years manufacturers have provided the public with a variety of platforms to . . . 'enhance the association in smokers minds between the benefits of smoking and our cigarette products'. Increasingly, by implication, these claims have turned to a health orientation and very often the closer these have come to relating the smoking benefit to being one of "health" the more successful has been the brand."

1089. A BATCo memorandum dated April 4, 1979 entitled "Year 2000" contains predictions for the future of the tobacco industry:

Low tar products will eventually and substantially define the tobacco business. This will serve as an important mechanism for

reassuring smokers. . . . Quitting rates will also not increase as existing smokers become increasingly reassured by the growth of Low Tar brands and increasingly reassuring health reports. . . . Although S [smoking] and H [health] concern will diffuse down through [consumers] the ready availability of Low Tar brands will supply high reassurance. . . . smokers who refrain or give up in response to pressures from family or friends who say that smoking will harm the health of the smoker. The strength of this argument will diminish as markets become dominated by lower risk products

1090. A February 28, 1985 internal memorandum by W.D.E. Irwin, scientist at BATCo's Group Research & Development Centre, to Dr. R. Binns, Manager, BATCo's Group Research & Development Centre, titled "New Initiatives – Less Contentious Products" acknowledges that lower deliveries probably resulted in increased sales:

In many markets, stagnation or contraction in total market size is due primarily to the health issue. If that issue were removed or substantially reduced in importance then total market size would either increase dramatically or, at worst, contract more slowly. . . . [T]he strategy . . . has been to reduce all smoke components whilst trying to minimize effects on product acceptability . . . this approach has probably led to a less rapid contraction in some markets than would have been the case if deliveries had not been reduced.

1091. American Tobacco. A 1967 Annual Report of American Tobacco shows that

[REDACTED]

1092. Lorillard. A September 15, 1964 memo from M. Yellen of Lorillard to Morgan J. Cramer, Lorillard President and Chief , concerning Lorillard's marketing and

sales policies, stated that, for several months before the release of the first Surgeon General's Report in January 1964, "LARK [a Liggett cigarette brand] was setting a base for future sales activities through the use of hospitals via rumors or otherwise . . . that medical scientists endorse LARK as the safest cigarette. This marketing technique on the part of LARK proved successful." This memo also acknowledged that Lorillard's marketing of Kent cigarettes as a less harmful brand contributed to its increased sales:

As all of us are aware, KENT was marketed as a "safer" cigarette for the smoker who was concerned about smoking and health. In 1956 when an innocent third party (Reader's Digest) created an awareness to the consumer that KENT was the "safest" of all popular cigarettes, Lorillard exploited this advantage so that within a short period of two years the KENT volume grew from less than four billion cigarettes to thirty-eight billion annually. . . . I feel we were successful in accomplishing our objective and maintaining the safety image of KENT among consumers sensitive to health . . .

1093. A November 13, 1973 presentation by Alexander Spears, a Lorillard scientist and later its CEO, stated: "Clearly the consumer is concerned about smoking and health, and is convinced in varying degrees that smoking is a possible detriment to his health. Presently, this factor is of active interest to R & D, since it has been used to an advantage in marketing both the KENT and TRUE brands."

1094. Liggett.

[REDACTED]

[REDACTED]

1095. A Liggett slide show presentation dated January 25, 1979 given by Dr. James Mold (Liggett's assistant Director of Research) regarding his scientific review of Liggett's Project XA described the self-proclaimed "strategy" of Project XA as

[t]o position XA as a major new breakthrough product for smokers who are concerned about the smoking controversy. . . . To capitalize on a heavy and sustained, hard-hitting PR [public relations] program that: . . . presents XA story in a complete and forthright way, communicating clearly that while Liggett does not believe that mouse-painting tests apply to humans, Arthur D. Little's replication of the original mouse-painting tests demonstrates our discovery of an effective means of treating 'tars' that reduce carcinomas (cancerous tumors) by 78 to 100% in mice.

(b) Defendants Intended That Their Low Tar and Filter Advertisements Induce Smokers Who Would Otherwise Quit Smoking to Continue to Smoke

1096. Through their advertisements for "light," "ultra-light," and "low tar/low nicotine" cigarettes and their other public statements, Cigarette Company Defendants have lulled smokers into believing that they can reduce the health risk created by cigarette smoking by switching to these "light" products, and have thereby intentionally reduced the incentive for smokers to quit smoking. Defendants' marketing of low tar cigarettes as safer has led to the explosive growth of the low tar market. As Defendants' deceptive marketing of low tar cigarettes has continued, the sale of low tar cigarettes has grown exponentially, so that "low tar/low nicotine" cigarettes now account for a substantial majority of the American cigarette market.

1097. The availability of, and advertising for, low yield cigarettes results in some

smokers who are concerned about the health effects of smoking switching from regular cigarettes to those with lower reported tar yields rather than quitting smoking altogether. Low tar cigarettes harm public health by providing a false sense of reassurance to smokers that can weaken their resolve to quit smoking.

1098. Many smokers perceive "light" cigarettes as an acceptable alternative to quitting smoking. As a result of Defendants' statements, smokers of "light" and "ultra light" cigarettes are less likely to quit than smokers of regular cigarettes. Additionally, as a result of Defendants' statements, many smokers of "light" and "ultra light" cigarettes consume more cigarettes than do smokers of regular cigarettes.

1099. Defendants conducted extensive research on quitting and used the results to intercept smokers who would otherwise quit, and to encourage smokers who had quit to reinitiate smoking, by portraying low tar brands as healthy alternatives to quitting.

1100. Tobacco Institute. A May 1978 document by the Tobacco Institute entitled "A Study of Public Attitudes Toward Cigarette Smoking and the Tobacco Industry in 1978 Volume I" prepared for the Tobacco Institute by The Roper Organization stated that "low tar cigarette smokers . . . are potential cigarette quitters. . . . And more of them than the average have tried to quit smoking. Since low tar smokers are an expanding share of the market, their greater desire to quit smoking poses a special problem for the cigarette industry."

1101. Philip Morris. Studies commissioned for Philip Morris establish that it was well aware that advertising caused smokers to believe that brands bearing low tar brand descriptors such as "light" and "ultralight" were less harmful and that often smokers concerned about the

health consequences of smoking switched to low tar brands instead of quitting. A January 1979 study prepared for Philip Morris stated:

[W]ith respect to ultra low tar brands there are appear to be particular additional motivations for smoking this type of cigarette . . . [h]ealth problem forcing a change to a safer cigarette (as an alternative to not being able to quit) . . . [p]eer and family pressure to smoke a safer cigarette (as an alternative to not being able to stop smoking) Characteristics of ultra low tar smokers were: people who want to quit In point of fact, smoking an ultra low tar cigarette seems to relieve some of the guilt of smoking and provide an excuse not to quit. . . . All of these smokers expressed an awareness of a health hazard from smoking, but felt that they had alleviated some of this hazard by smoking an ultra low tar brand. They described these cigarettes as "safer". . . . With these justifications, there may be less of a compulsion to quit smoking.

This 1979 study prepared for Philip Morris also stated that "the likelihood of ultra low tar smokers taking another step and stopping does not seem great."

1102.

[REDACTED]

[REDACTED]

1103. R.J. Reynolds. R.J

marketing materials portrayed

Eclipse as less hazardous and an alternative to quitting:

Now There's a Cigarette that Addresses Concerns About Certain Smoking-Related Illnesses. Including Cancer. . . . The best choice for smokers who worry about their health is to quit. But for those who choose to smoke, the next best choice is Eclipse. Eclipse is

much like any cigarette, yet scientific studies show that compared to other cigarettes it: May present less risk of cancer associated with smoking (emphasis added).

1104. Brown & Williamson. A 1986 Brown & Williamson document stated: "Quitters may be discouraged from quitting, or a least kept in the market longer. . . . A less irritating cigarette is one route (indeed, the practice of switching to lower tar cigarettes and sometimes menthol in the quitting process tacitly recognises this). The safe cigarette would have wide appeal, limited mainly by the social pressures to quit."

1105. A 1984 Brown & Williamson internal marketing research document entitled "Why People Smoke, Brand Imagery and New Product Opportunities" made clear that Brown & Williamson was aware that its Barclay cigarette (which Brown & Williamson marketed as an ultra-low tar cigarette) appealed mainly to those who would otherwise quit smoking. The document stated that both smokers of Brown & Williamson's Barclay cigarettes and smokers of other brands "perceive BARCLAY to be for one who wishes not to smoke."

1106. In June 1992, Mark Kovatch, Brown & Williamson Vice President of Trade Marketing wrote a document acknowledging that a motivating factor to keep smoking or resume smoking after quitting is tar level. According to Kovatch, consumers think in terms of segmentation descriptors of lights and ultra lights because cigarette advertising educates them on various levels of products and what they think they deliver.

1107. BATCo. A BATCo "R&D/Marketing Conference" report on or about 1984 stated: "It is useful to consider lights more as a third alternative to quitting and cutting down – a branded hybrid of smokers' unsuccessful attempts to modify their habit on their own." This

document also discusses that lights "offered one solution to the smokers dilemma" regarding the adverse health effects of smoking.

1108. A March 22, 1979 internal BATCo document written by Terry Hanby, who researched "Smoking & Health reassurance" for BATCo, provided that the sale of low tar cigarettes as "health reassurance" products would stem the decline in cigarette sales:

It is quite clear that the emergence of Hi-Fi products has been welcomed by much of the smoking community and their use is emerging as an important health reassurance mechanism for many smokers. . . . [T]he growth of Hi-Fi brands will increasingly ensure that up-market smokers will turn to them as a health reassurance mechanism. . . . [W]e feel that in the markets of "developed nations" the incidence of smoking may continue to decline but that the various reassurance mechanisms listed above will ensure that this decline levels.

1109. An April 4, 1979 BATCo document predicting smoking in the year 2000 illustrates Defendants' awareness that smokers who would otherwise quit would continue to smoke based on Defendants' assurances regarding low tar cigarettes: "Low tar products . . . will serve as an important mechanism for reassuring smokers. . . . Quitting rates will also not increase as existing smokers become increasingly reassured by the growth of Low Tar brands"

1110. A February 28, 1985 BATCo document from W.D. Irwin, a BATCo scientist at BATCo's Group Research and Development Centre, to Dr. R. Binns, Manager at BATCo's Group Research & Development Centre, indicates that low-delivery products have prevented some sales from dropping: "[T]his approach has probably led to a less rapid contraction in some markets than would have been the case if deliveries had not been reduced."

1111. A May 7, 1982 report prepared by a consultant for Imperial Tobacco Ltd. (the

Canadian sister company of Brown & Williamson) revealed that many smokers, young and old, view light brands as vehicles for quitting for health reasons, but that they are unsuccessful, leaving smokers frustrated and smoking more. The report stated that youth believed the "truly light brands" were "false safety brands for the older worried smoker who cannot quit. . . . Of course, they knew this because some . . . had tried to go very low for exactly the same reasons as smokers two or three times their age do so. All they found was increased consumption and frustration." Statements from young smokers included: "I think all the stuff coming out the past couple of years about how bad smoking is for you made a lot of people go down to a light cigarette to sort of ease their own conscience." One smoker said of light cigarettes: "'Well, that's like quitting!' But I didn't get anything out of it. I thought 'Well, what's the use of smoking? I'll just go back to what I was smoking before.'"

1112. Internal documents from Imperial Tobacco Ltd., the Canadian sister company of Brown & Williamson, revealed that the company viewed the promotion of light cigarettes as the "ability to reassure smokers, to keep them in the franchise for as long as possible."

1113. Some of Defendants' advertisements specifically targeted quitters in an effort to intercept them and keep them smoking. A representative sample of some of the Cigarette Company Defendants' more overt advertisements specifically portraying low tar cigarette smoking as less harmful than smoking regular cigarettes and, therefore, an acceptable alternative to quitting, is provided below.

1114. A 1975 R.J. Reynolds Vantage ad (distributed in several magazines, including Newsweek) stated: "If you're like a lot of smokers these days, it probably isn't smoking that you

want to give up. It's some of that 'tar' and 'nicotine' you've been hearing about." As stated in the 1981 FTC Report on cigarette advertising, R.J. Reynolds's "Vantage employs signed testimonials by smokers who claim to have considered the risks of smoking and decided not to quit smoking, but rather to switch to Vantage. The headlines say: 'Smoking. Here's what I'm doing about it,' or 'With Vantage, I don't have as many problems with smoking.'"

1115. A 1977 Advertisement for Carlton cigarettes (originally manufactured by American) depicted a healthy, smiling female holding a cigarette, stating: "I switched to less tar. Carlton is lowest in tar and has a light mild taste I really enjoy! I switched. You can too! Carlton is lowest in tar and nicotine."

1116. Several Lorillard advertisements for its True brand indicate that True cigarettes are less harmful due to their low tar and nicotine. As noted in the 1981 FTC Report on cigarette advertising, these ads also "incorrectly impl[y] that when the alternatives of quitting smoking or smoking a low 'tar' cigarette are weighed, the low 'tar' cigarette is the healthier option." Several examples are provided below:

- 1975 – (depicting young woman sitting with one hand pensively pressed to temple): "I thought about all I'd read and said to myself, either quit or smoke True. I smoke True. The low tar, low nicotine cigarette. Think about it."
- 1975 – (depicting athletic man in a locker room with golf clubs): "I'd heard enough to make me decide one of two things: quit or smoke True. I smoke True. The low tar, low nicotine cigarette. Think about it."
- 1974-1975 – (depicting athletic man in locker room with gold clubs): "With all I've read about smoking and things I decided to: 1. Play as hard as I work. 2. Cut out the heavy lunches. 3. And either quit smoking or smoke True. I smoke True. The low tar, low nicotine cigarette. Think about it."
- 1974-1975 – (depicting man in business suit): "With all I've read about smoking I

decided I'd either quit or smoke True. I smoke True. The low tar, low nicotine cigarette. Think about it."

- 1976 – (depicting athletic woman smoking and leaning on tennis net with tennis racket): "Considering all I'd heard, I decided to either quit or smoke True. I smoke True. The low tar, low nicotine cigarette. Think about it."

(c) Defendants Disseminated False and Fraudulent Statements, Including Advertisements, Portraying Low Tar Cigarettes as Less Harmful

1117. From the early 1900's to the present day, Defendants have made explicit and implicit claims that their low tar and filtered cigarettes were either not harmful at all or less harmful than regular delivery and unfiltered cigarettes. Defendants made these claims when they either lacked evidence to substantiate them or knew that they were false. From the early 1900s to the mid-1950s (when the Federal Trade Commission published advertising guidelines specifically prohibiting unsubstantiated health claims), Defendants made claims explicitly and overtly promising that their cigarettes were less harmful. Decades later, after having widely disseminated their reduced harm claims for decades, when they were faced with more forceful restrictions on deceptive advertising, Defendants continued to make false and deceptive claims that low tar and filtered cigarettes were less harmful, but did so in a more subtle fashion, adding to their previous explicit claims of reduced or eliminated harm with more implicit ones. With the advent of newer cigarette designs and smoking products, the Cigarette Company Defendants' false and deceptive claims that they have reduced or eliminated the harmfulness of the cigarettes they sell continue to this day.

1118. As the 1981 FTC Report on cigarette advertising noted, many of the Defendants' advertising campaigns have, over the course of the last four decades, "impl[ied] that smoking a

particular brand solves the health problem or at least minimizes the risk." The advertisements for Philip Morris's Parliament cigarettes, R.J. Reynolds's Vantage cigarettes, Brown & Williamson's Viceroy and (formerly American Tobacco's) Tareyton cigarettes and Lorillard's True cigarettes are cited as examples of advertising campaigns intimating that the brands marketed are either not hazardous or less hazardous.

(i) Defendants' Advertisements and Other Public Statements Through the Mid-1950's Explicitly Promised That Low Tar and Filtered Cigarettes Were Less Harmful

1119. Until the mid-1950s, cigarette manufacturers routinely made unsubstantiated express health claims touting the relative or absolute benefits of their brands.

1120. Philip Morris. Some examples of early Philip Morris advertisements making explicit claims of reduced harmfulness due are:

- "If, like millions today, you are turning to filter cigarettes for pleasure plus protection . . . it's important that you know the Parliament Story." (1952 Philip Morris Parliament ad)
- "Parliament's exclusive Filter Mouthpiece gives you the important extra protection of the Parliament 'Safety-Zone' Construction . . . As the irritants, brown tars and colorless nicotine are trapped, they remain where they belong—in the recessed filter, completely out of contact with your lips." (1952 Philip Morris Parliament ad)
- "The medical specialist, after a thorough examination of every member of the group, states: 'it is my opinion that the ears, nose, throat and accessory organs of all participating subjects examined by me were not adversely affected in the six-months period by smoking the cigarettes provided. And it's so satisfying to know that a doctor reports no adverse effects to the nose, throat and sinuses from

smoking Chesterfield." (1953 Philip Morris Chesterfield ad)

- "The cigarette that takes the FEAR out of smoking!" (1954 Philip Morris brand cigarette ad)

1121. R.J. Reynolds. R.J. Reynolds's Camel advertisements included the following slogans, all of which indicate that Camels are less harmful:

- "They don't get your wind!" (1935)
- "Camels Never Get On Your Nerves"(1937)
- "They're so mild and never make my throat harsh or rough."(1937)
- "More Doctors Smoke Camels than Any Other Cigarette!"(1946)
- "Not one single case of throat irritation due to smoking Camels!"(1949)
- "More Doctors Smoke Camels than any other cigarette!"(1952)

1122. Brown & Williamson. Brown & Williamson Kool advertisements in the 1950s included the following implied health claims:

- "Got a cough? Switch from 'hots' to Kools . . ." (in 1951-1952)
- "With every puff your mouth feels clean . . . your throat refreshed" (in 1959)

1123. Brown & Williamson Viceroy ads in the early 1950s stated:

- "Filtered cigarette smoke is better for your health."(1951)
- "The nicotine and tars trapped by this Viceroy filter cannot reach your mouth, throat or lungs!"(1951)
- "Filtered Cigarette Smoke is Better for Your Health . . . Yes! The Nicotine and Tars Trapped by the VICEROY FILTER Cannot Reach Your Throat or Lungs!"(1952)
- "Prominent physician tells patients– 'Smoke Viceroy Filter-Tip Cigarettes. The

nicotine and tars trapped by this Viceroy filter cannot reach mouth, throat or lungs!"; "For Greater Health Protection Get Viceroy with the new Health-Guard Filter."(1952)

- "New King-Size Viceroy gives Double-Barreled health protection"(1953)
- "[Viceroy] is safer for throat, safer for lungs than any other king-size cigarette."(1953)
- "Viceroy Gets the Votes . . . from Happy Throats."(1953)

1124. A February 13, 1989 cover letter from Gene Peck of the law firm of Shook, Hardy & Bacon to Robert H. Sachs, Esq., General Counsel, Product Litigation for Brown & Williamson, transmitting a memorandum called "A Proposed Response to the 'Bad' Ads: The Calfee Defense to Express Warranty Claims," written by Eugene S. Peck and based on the opinions of Jack Calfee regarding the company's potential liability for claims of breach of an express warranty of health or safety for the "bad" cigarette ads of the 1950s, acknowledges that Defendants' advertisements during the 1950s contained explicit claims of reduced harmfulness:

[R]oughly between 1952 and 1955, [cigarette advertising] continued to address symptomatic aspects of smoking but added a new element: fear appeals containing general, brand-related suggestions of safety. . . . This is the era of the most troublesome ads. Some advertisements stated that a particular brand was "safer" or offered greater "health protection" than another. . . . Calfee would agree that the manufacturers probably intended to reassure consumers by the 1952-55 health ads.

1125. Similarly, a January 6, 1981 internal Brown & Williamson document by E.T. Parrack explains that Kool was first positioned as a "medicinal" brand that would provide "[r]elief from coughs due to colds and smokers hack." These advertisements, which were placed in such periodicals as the American Medical Association Journal, were directed at doctors.

1126. BATCo. A BATCo du Maurier (Imperial – Canada) ad from 1954 stated: "A new frontier in safer smoking . . . If you have been concerned about your cigarette habit . . . duMaurier tip filters out so much harmful smoke it will also filter out much of the 'worry in every puff you take."

1127. American. A 1932 advertisement for American's Lucky Strike cigarette utilized an endorsement of a Hollywood actress who "loves to climb mountains . . . where even the goats have to wear skid chains," states "'I swore off harsh irritants' . . . LUCKY STRIKES . . . Your Throat Protection – against irritation, against cough." Another early Lucky Strike advertisement stated: "20,679 Physicians say 'Luckies are less irritating' . . . Your Throat Protection against irritation, against cough."

1128. A 1954 American Tobacco Tareyton advertisement stated: "Tareyton's genuine cork tip protects your lips."

1129. Lorillard. Reduced harm claims in Lorillard's Kent ads included:

- "This is the story of the birth of a new cigarette and the birth of a new idea in health protection for cigarette smokers."(1952)
- "[A] new freedom from worry about the effects of tobacco irritants."(1952)
- "First cigarette ever to give you black and white proof of greatest health protection . . . with full smoking pleasure!"(1953)
- "The American Medical Association voluntarily conducted in their own laboratory a series of independent tests of filters and filter cigarettes. As reported in the Journal of the American Medical Association, these tests proved that of all cigarettes tested, one type was the most effective for removing tars and nicotine. This type filter is used by Kent . . . and only Kent! . . . For the greatest protection of any filter cigarette."
- "The difference in price is just a few pennies . . . the difference in protection is

priceless! Only Kent goes to the extra expense to protect you with MICROSCOPIC FILTERING."

- "KENT gives greater protection than any other cigarette."

1130. Lorillard Old Gold advertisements from the 1930s to the 1950s made the following health claims:

- "Not a cough in a carload."(1935)
- "Old Golds are a TREAT instead of a TREATMENT"(1952)
- "Smoke Old Gold for a TREAT instead of a TREATMENT!"(1953)
- "No other leading cigarette is less irritating, or easier on the throat, or contains less nicotine than Old Gold."(1953)

1131. Liggett. Liggett's advertisements for L & M cigarettes in 1953-1954 stated:

- "L & M Filters . . . entirely pure and harmless to health."(1953)
- "L & M Filters are Just What the Doctor Ordered!"(1954)

1132. These ads by Defendants explicitly stated that filters and/or reductions in machine-measured tar and nicotine yields made their cigarettes better for your health.

(ii) Defendants' Later Advertisements and Public Statements Continued Their Deception That Low Tar and Filtered Cigarettes Are Less Harmful

1133. Having established the link in the minds of consumers between low tar/filtration and reduced harm through decades of explicit health claims from the 1930s through the 1950s (without any evidence that low tar and filtered cigarettes were less harmful), Defendants knew that their later advertisements, which built on their earlier advertisements with implied health claims, would be perceived in the minds of consumers as indicating that their low tar and filtered

cigarettes were harmless or less harmful products.

1134. An example of Defendants' evolution from using explicit health claims to establish in consumers' minds that low tar/filtered cigarettes are harmful to later implicit health claims adding to and reinforcing their earlier claims is evident in Lorillard's advertisements for its Kent cigarettes. From the early 1950s through the 1960s, Lorillard's Kent advertisements explicitly represented that Kent cigarettes' filter rendered Kents less hazardous:

- "Amazing new Kents give far greater health protection. Exclusive "MICRONITE" FILTER removes up to 7 times more nicotine and tars than other leading filter cigarettes"
- "[I]f you worry about the harmful effects of smoking . . . No other cigarette approaches such a degree of health protection and taste satisfaction. Because this filter is exclusive with KENT, . . . no other cigarette offers smokers such a degree of health protection and taste satisfaction."(1952)
- "First cigarette ever to give you black and white proof of greatest health protection."(1953)
- "KENT – THE CIGARETTE WITH THE MICRONITE FILTER. SCIENTIFICALLY, THE MOST EFFECTIVE FILTER EVER DEVELOPED TO FREE CIGARETTE SMOKE OF IMPURITIES. . . . NO OTHER CIGARETTE APPROACHES SUCH A DEGREE OF HEALTH PROTECTION"
- "If you're the 1 in every 3 smokers who needs protection against tars and nicotine . . . Look at Kent's proof of greatest filter protection and see why you should change to Kent! the greatest filter protection in cigarette history!"(1954)
- "Your voice of wisdom says SMOKE KENT."(1955)
- "Don't be Misled By Confusing Claims. Today, as before, you get LESS TAR AND NICOTINE IN KENT THAN IN ANY OTHER LEADING FILTER CIGARETTE IN AMERICA!"(1958)
- "It's the smoke that comes through the filter that counts! You get less tars and nicotine in the smoke of Kent than in any other leading filter cigarette."(1959)

- "Kent with the MICRONITE filter is smoked by MORE SCIENTISTS, MORE EDUCATORS, MORE BANKERS, MORE LAWYERS than any other cigarette."(1960)
- "No medical evidence or scientific endorsement has proved any other cigarette to be superior to KENT."(1964)

1135. Philip Morris. As noted in the 1981 FTC Report on cigarette advertising, a Philip Morris Parliament ad from the time period preceding the Report (i.e., late 1970's – 1981) implies that its "special filters minimize the risks of smoking." The advertisement "claims that the cigarette's recessed filter prevents the smoker's lips from touching the 'tar' that 'builds up on the tip.'"

1136. A 1974-1975 Philip Morris Parliament ad depicts a famous deep-sea diver who "couldn't fathom the idea of smoking without his cigarette holder. Because it gave him clean taste. No need for a cigarette holder today. Parliament's filter is recessed, so you taste only clean tobacco flavor. It adds new depth to clean taste."

1137. R.J. Reynolds. A September 17, 1968 R.J. Reynolds Doral Filter brand cigarette ad stated: "New Doral. A whole new kind of low 'tar' and nicotine cigarette – with a whole new kind of filter system. Cellulon fiber to reduce 'tar' and nicotine . . . and a strange-looking polyethylene chamber with baffles and air channels. You'd need a scientist to explain it. But Doral says it all in two words: 'taste me.'"

1138. A 1974-1975 R.J. Reynolds Doral ad implied a health benefit to low tar cigarettes by analogizing them to a "Doral Diet." The ad, depicting a youthful man lighting a cigarette, stated: "'How I lost 700 mg. of 'tar' the first week . . . without losing out on taste.' 'I'm not too

big in the willpower department. But I lost 700 milligrams of "tar" the first week on what I call "The Doral Diet." Now I can still enjoy smoking, and cut down on "tar" and nicotine, too. . . . For a pack a day smoker like me, my Doral Diet really ads up."

1139. R.J. Reynolds's advertising campaign for its Vantage cigarettes expressly conveyed alleged health benefits of this low tar brand. Among the ads for Vantage were the following:

- "By now, as an adult, you must have read and heard all that's been written and said for and against cigarettes. . . . Vantage gives you real flavor, like any high 'tar' and nicotine cigarette you ever smoked, without the high 'tar' and nicotine. And since it is the high 'tar' and nicotine that many critics of cigarettes seem most opposed to, even they should have some kind words for Vantage."(June 25, 1972 R.J. Reynolds Vantage Menthol)
- "Maybe the people who criticize smoking should stare the facts in the face. Then they might recommend that if you've decided to smoke, but are concerned about 'tar' and nicotine, you might smoke Vantage. . . . Vantage is both high in flavor and low in 'tar' and nicotine."(1974-1975 Vantage Menthol)
- "Anybody who smokes knows there's a controversy about smoking going on. And that most of the controversy is about 'tar' and nicotine. . . . [W]hat Vantage Menthol . . . doesn't have is anywhere near the 'tar' and nicotine most of the other menthols have."(1974-1975 Vantage Menthol)
- "Are you still smoking? In the years since the criticism against smoking first appeared, many people have given up cigarettes. But many more people haven't. . . . [W]e'd like to talk to. . . . [t]hat even larger group of people who are still smoking today. If you're a smoker, you've probably heard the charged leveled against 'tar' and nicotine. You may have become concerned. And chances are you even tried to do something about it. Like trying . . . low 'tar' and nicotine cigarettes. . . . Vantage cuts down substantially on the 'tar' and nicotine you may have become concerned about. . . . So, if you still smoke, but would like to cut down on 'tar' and nicotine, Vantage is the one cigarette you should seriously consider." (March 22, 1976 Vantage Menthol)
- "Vantage cuts down substantially on the 'tar' and nicotine you may have become concerned about."(1976 Vantage)

1140. While Defendants claim that the use of FTC tar and nicotine numbers in their advertisements was not intended to convey that these numbers are what is actually inhaled by smokers, and despite Defendants' knowledge that, due to smoker compensation, the FTC tar and nicotine yields of low tar cigarettes are inaccurately low compared to what a smoker actually inhales, the internal documents of R.J. Reynolds illustrated the fact that Defendants' intent was, in fact, to communicate FTC tar and nicotine deliveries as what the smoker actually receives.

1141. On August 13, 1986, Miriam G. Adams, R.J. Reynolds Public Relations, sent an August 12, 1986 transmittal letter of draft reply to consumer E.J. Walsh on nicotine free cigarette to Robert H. Shaw, R.J. Reynolds Legal Department, for review. The letter stated: "Although there is not a nicotine-free cigarette on the market, our NOW cigarettes contain very low levels of nicotine compared to other commercial brands." NOW cigarettes tested below other commercial brands in FTC nicotine delivery.

1142. A July 26, 1988 "Script for Contact of State Officials" regarding R.J. Reynolds's PREMIER cigarette stated that, "[i]n response to smokers' changing demands, today's cigarettes yield significantly less 'tar' and nicotine than they did 30 years ago."

1143. Brown & Williamson. A Brown & Williamson memorandum dated June 27, 1958 from J. N. Ravlin in Brown & Williamson's legal department transmitting a draft of letter to Mr. Rudy Santick stated:

Thank you for your recent letter asking us about the nicotine and tar content of KOOL cigarettes. . . . Our KOOL filter king cigarette is made of the same fine tobacco to which is added a clean, pure filter, derived from cellulose. In our opinion the KOOL filter assures excellent filtration. It removes substantial quantities of tars and nicotine and rates very well when measured by testing

methods which we believe are the most accurate and the most significant to the average smoker.

1144. Despite the fact that, as early as March 19, 1984, Ernest Pepples, Senior Vice President and General Counsel of Brown & Williamson wrote a letter to Howard Liebengood of the Tobacco Institute acknowledging that FTC tar and nicotine ratings "may be misleading to consumers" and bear no relation to actual consumer intake, more than ten years later, Tommy Sandefur, CEO of Brown & Williamson, stated just the opposite in a written statement to Congress defending the FTC Method: "We also vigorously dispute the suggestion of Dr. Kessler and Dr. Slade that the 'tar' and nicotine ratings produced using the FTC test method are meaningless or misleading."

1145. While Brown & Williamson CEO Susan Ivey maintained at her June 20, 2002, deposition that Brown & Williamson's position, as conveyed on its web site, is that "there is no such thing as a safe cigarette. And if you really want safe, you should quit smoking," she also stated that Brown & Williamson's position on low tar cigarettes, also conveyed on its web site, "is that less [referring to FTC tar and nicotine] is better than more," which continues to reinforce the false perception of the public, particularly smokers, that low tar cigarettes are safer than regular delivery cigarettes.

1146. American Tobacco. Advertisements that appeared in Time and Newsweek in 1964 for American Tobacco's Carlton cigarettes stated: "Everything about Carlton is selected and crafted to produce this one result: A cigarette that is low in 'tar' and nicotine—yet high in smoking pleasure. Carlton is so low in 'tar' and nicotine that we print test results on all packs, on all cartons. . . . Carlton – lightest smoke of all. See for yourself."

1147. Several advertisements for Carlton cigarettes implied a government endorsement of its cigarettes as less harmful:

- "For 10th straight published Gov't Report Carlton. Still lowest in 'tar' of all regular filter kings tested. . . . For the last 10 consecutive Government Reports. Carlton has been found lowest in 'tar' of all regular filter kings tested. That's every Report since October 1968." (1973 U.S. News & World Report advertisement)
- "Of all filter kings tested: Carlton is lowest. Look at the latest U.S. Government figures for other brands that call themselves low in tar." (1974 U.S. News & World Report advertisement)
- "Of all filter kings tested: Carlton is lowest. For the 12th straight time, the U.S. Government has reported Carlton to be the lowest in tar of all filter kings tested." (1974-1975)
- "Of all filter kings tested: Carlton is lowest. Look at the latest U.S. Government figures for other brands that call themselves low in tar." (1974-1975)
- U.S. GOVERNMENT REPORT: CARLTON LOWEST. Carlton claim confirmed. Many cigarettes are using national advertising to identify themselves as 'low tar.' Consumers, however, should find out just how low these brand are—or aren't. Based on U.S. Government Report: 14 Carltons, Box or Menthol, have less tar than one Vantage. 11 Carltons, Box or Menthol, have less tar than one Merit. 11 Carltons, Box or Menthol, have less tar than one Kent Golden Lights. 6 Carltons, Box or Menthol, have less tar than one True. . . . This same report confirms of all brands, Carlton Box to be the lowest with less than 0.5 mg. tar and 0.05 mg. nicotine." (1978 magazine advertisement)
- "Carlton is lowest. See how Carlton stacks down in tar. Look at the latest U.S. Government figures [table comparing Carlton favorably with Winston Lights, Vantage, Salem Lights, Kent Golden Lights, Merit and True cigarettes]" (1978 magazine advertisement)
- "Based on latest U.S. Government Report: Carlton is lowest. See how Carlton stacks down in tar. Look at the latest U.S. Government figures [table comparing Carlton favorably with Winston Lights, Vantage, Salem Lights, Kent Golden Lights, Merit and True cigarettes]." The copy of the advertisement produced from American Tobacco's files contains a handwritten notation indicating that the tar yield represented in the advertisement may have been false: "Showed Box at < 0.5 MG, even though cup was same as Now (1 MG each)."

1148. A February 1987 magazine advertising campaign for Carltons also prominently featured claimed tar and nicotine reduction: "If you smoke . . . Compare your cigarette to Carlton. If you're interested in smoking an ultra low tar and nicotine cigarette, you should compare the tar and nicotine content of your cigarette to Carlton. Most cigarettes sold today have 10 times the tar and nicotine of Carlton Box Kings & Box 100's." Another Carlton advertisement campaign from the late 1980's also had lowest tar as its centerpiece and implied a United States government endorsement, listing Carlton as having lower tar than Philip Morris's Merit and R.J. Reynolds's Vantage cigarettes:

If you smoke . . . Here's the latest comparative information for smokers who want lower tar & nicotine. . . . CARLTON became the first brand to put these [tar and nicotine] figures right on the pack. . . . In the last 21 reports issued by the U.S. Government, no cigarettes has tested lower than Carlton. . . . If you are interested in the tar content of your cigarette, you should compare the tar content of your cigarette vs CARLTON. If you are interested in the lowers . . . LATEST U.S. GOV'T REPORT CONFIRMS: no brand lower than Carlton Box King.

1149. Several 1977 newspaper advertisements for American's Tareyton cigarette implied that its charcoal filtration was superior, implying an endorsement of charcoal filtration by the Environmental Protection Agency and citing its use by the United States Navy in submarines and by NASA in spacecraft. A typical ad stated: "New low-tar with that Tareyton plus. . . . U.S. Environmental Protection Agency reports that charcoal is the best available method for filtering water. Charcoal also helps freshen air in submarines and spacecraft and is used to mellow the finest bourbons." Another such advertisement implied a health benefit with the double-entendre "Switch for good!" and continued, stating: "Tareyton lights. The new low-tar." An advertisement in 1977 for Tareyton low tar menthol promised "dual filtration," which "cuts tar

while giving you the full fresh taste of natural menthol."

1150. Lorillard. Lorillard produced several advertisements promising health benefits due to low tar and filtration in addition to the Lorillard Kent advertisements set forth at the beginning of this subsection.

1151. A 1974-1975 Lorillard Kent advertisement stated: "Micronite filter. Mild, smooth taste. For all the right reasons. Kent."

1152. Lorillard True advertisements from 1974-1975 stated: "True. Easy on your mind. Easy on your taste. . . . [B]ecause True is so low in tar and nicotine, every cigarette is as easy on your mind as it is on your taste. Think about it."

1153. Several other Lorillard True ads from 1974-1975 implied a government endorsement of True cigarettes as less hazardous based on the FTC method tar and nicotine measurements:

- "U.S. Govt. tests show True is lower in both tar and nicotine than 98% of all other cigarettes sold. That means True is not only gentle on your mind, it's gentle on your taste."
- "No other cigarette can make this statement: U.S. Government tests of all cigarettes show True is lowest in both tar and nicotine of the 20 best-selling cigarettes. In fact, True is lower than 99% of all cigarettes sold."

(iii) Philip Morris Deceptively Utilized Brand Descriptors to Market "Light" Cigarettes With Higher Tar and Nicotine Yields Than Their Corresponding Regular Tar Brands

1154. The misleading and deceptive use of brand descriptors by Philip Morris is further demonstrated by Philip Morris's selective use of brand descriptors to name and market products with similar or identical machine-delivered tar and nicotine yields.

1155. Philip Morris has even marketed "light" products, such as Marlboro Lights or Cambridge Lights, that have FTC tar and nicotine yields that exceed the yields for products marketed without such descriptors, like Merit and Doral.

1156. In 1979, Philip Morris manufactured a cigarette that measured 0.00 mg. tar on the FTC test. Cambridge was initially sold as a cigarette with an FTC tar yield of 0.0 mg (less than 0.1 mg tar) without a brand descriptor indicating that it was a low tar cigarette. In 1986, it was repositioned and re-introduced as Cambridge Lights with 12 mg tar (FTC), Cambridge Ultra Lights with 6 mg tar (FTC), and Cambridge Full Flavor Kings with 16.1 mg tar (FTC) in November 1988.

1157. A 1986 memo to Philip Morris's "entire sales force" from L. Glennie announced the national introduction of Cambridge Lights at 12 mg tar (FTC) with the statement: "The Cambridge name will give us an opportunity to build upon established familiarity and create a new image for Cambridge through advertising and promotional activities."

1158. This demonstrated Philip Morris's ability to develop and market a product that delivered no tar by the FTC method, as well as its misleading and deceptive use of brand descriptors. Philip Morris's use of brand descriptors was misleading and manipulative because Philip Morris sold a product called "Cambridge" with less than .1 mg. tar (FTC) without a brand descriptor. Then, after establishing consumer's association with "Cambridge" as a low tar (i.e., "healthier" product), Philip Morris introduced "Cambridge Lights," which in fact had about 120 times more tar than the original non-Light Cambridge, and an "Ultra Lights," which in fact had about sixty times more tar (FTC) than the original Cambridge. They also sold one version of the

product with the identical name (i.e., Cambridge without any descriptor) that had 160 times the tar of the original product by the same name.

(iv) Defendants' Advertisements and Other Public Statements Relating to Their New, Purportedly Less Hazardous Products Also Deceptively Indicate That They Are Less Harmful

1159. In their advertisements and public statements relating to their more recent cigarette products, Defendants again make claims implying health benefits due to a purported reduction in harmful components, without proof to support the inference that these newer cigarette products are, in fact, less harmful to humans.

1160. As Defendants' own documents indicate, their repeated explicit and implicit claims over the years that their low tar and filtered cigarettes are less harmful has led smokers to believe these claims, to the point that smokers now expect that Cigarette Company Defendants will develop less harmful products. For example, a May 6, 1992 BATCo document entitled "Topics in Smoking and Health 'Bible'" stated: "Smokers will continue to look to the industry to develop products which they consider will reduce the risks to health." Defendants have capitalized on this perception and continued their practice of deception with respect to their more recent cigarette products, such as Philip Morris's Accord, R.J. Reynolds's Premier/Eclipse, Brown & Williamson's Advance, and Liggett's Omni.

1161. Philip Morris.

[REDACTED]

[REDACTED]

1162.

[REDACTED]

[REDACTED]

1163. On at least one occasion, during [REDACTED] of a television interview, a portion of which was later broadcast, Philip Morris Vice President of Communications and Public Relations Michael Pfeil made public statements that Accord results in a reduced amount of smoke constituents generally recognized to be harmful (specifically Tobacco Specific Nitrosamines and perhaps benzo(a)pyrene and carbon monoxide as well). Despite this, Pfeil testified that "[t]he company has made no claims regarding Accord as far as health risks are concerned," and therefore he was not concerned that someone might choose to smoke Accord because they believe it is a reduced risk product.

1164. R.J. Reynolds. A July 27, 1987 proposed Q & A for R.J. Reynolds's Premier cigarette (a.k.a. "SPA") bearing the handwritten inscription "Prepared for lawyers" illustrates how the industry denies that it makes health claims about its cigarettes and intimates health benefits in the same breath:

The Company does not make any health claims regarding the smoke from PREMIER or its components. . . . PREMIER has

shown very substantial decreases in biological activity when compared with different reference products. . . . [T]he animals exposed to the smoke from PREMIER are virtually identical to air-exposed controls for both responses, whereas very pronounced irritation was seen in animals exposed to the smoke from reference cigarettes. . . . The company does not make an[y] health claims as to the safety of PREMIER when compared with reference cigarettes. . . . [C]hanges induced in the respiratory tracts of animals exposed to smoke from PREMIER [were] virtually identical to those changes noted in animals exposed to air only. . . . SINCE THE PRODUCT HAS SHOWN BIOLOGICAL ACTIVITY IN YOUR OWN TESTS, DOESN'T IT JUST OFFER SMOKERS A FALSE SENSE OF SECURITY? . . . The Company does not make any claims as to the safety or other wise of PREMIER when compared with reference cigarettes. The biological activity noted in the inhalation experiments is substantially less than that exhibited by reference cigarettes.

1165. R.J. Reynolds's 2000 Eclipse marketing materials portray Eclipse as less hazardous and an alternative to quitting:

Introducing Eclipse. A Better Way to Smoke. . . . Now There's a Cigarette that Addresses Concerns About Certain Smoking-Related Illnesses. Including Cancer. . . . The best choice for smokers who worry about their health is to quit. But for those who choose to smoke, the next best choice is Eclipse. Eclipse is much like any cigarette, yet scientific studies show that compared to other cigarettes it: May present less risk of cancer associated with smoking. Reduces secondhand smoke by 80%. Produces less inflammation in the respiratory system, which suggests a lower risk of chronic bronchitis, and possibly emphysema. WHY THERE'S NO CIGARETTE LIKE ECLIPSE.

In these marketing materials, R.J. Reynolds claims that compared to a "typical ultralight," Eclipse has:

97% less tobacco burned; 72% less tar and nicotine; 86% less carcinogens; 80% less secondhand smoke; 15% less carbon monoxide; no lingering smoke odor in home and hair; no visible staining of walls, fabric and glass; no ashes. . . . About Eclipse and

Your Health. May present less risk of cancer. Reduces harmful compounds. Reduces respiratory inflammation. . . . What makes Eclipse so different from other cigarettes? Among other things, the smoke contains much less of the harmful chemicals that have been linked to cancer. It looks cleaner because it is cleaner. Visual residue from the smoke of five cigarettes passed through identical pads demonstrates the dramatic difference in the 'tar' from Eclipse [referring to adjacent visual graphic].

1166. Brown & Williamson. Brown & Williamson's advertising slogan for ADVANCE cigarettes overtly implies that Advance is less harmful: "Advance: All of the taste . . . Less of toxins."

1167. A Brown & Williamson Advance Lights Kings onsert (a pamphlet added to the cigarette packs) stated:

ADVANCE All of the taste . . . Less of the toxins. Brown & Williamson Tobacco is providing this information so adult consumers have a basis for making informed choices. ADVANCE cigarettes, made with premium tobaccos, combine two important new technologies to deliver rich tobacco taste and reduce the levels of many toxins. First, our 3-part TRIONIC™ Filter employs a unique combination of filtration elements to reduce the particulate matter commonly known as "tar," and to specifically reduce the amounts of many toxins. Second, a patented tobacco curing process significantly inhibits the formation of tobacco-specific nitrosamines (TSNAs), a group of toxins in tobacco and tobacco smoke. This combination of curing and filtration technologies results in less toxins across several categories, as shown in the following tables.

1168. A Brown & Williamson document indicates that Brown & Williamson made a public statement describing its Trionic™ Filter (used in Brown & Williamson's ADVANCE cigarette) as having been "developed to decrease the levels of many of the principal toxins found in cigarette smoke."

1169. A November 5, 2002 Brown & Williamson press release for Brown & Williamson's Advance Lights cigarettes made several statements indicating that Advance Lights are less hazardous: "The new cigarette brand has significantly less of many toxins than the leading lights brand styles." Sharon Boyse, Brown & Williamson Director of Applied Research, stated: "Advance Lights . . . reduce the levels of many toxins. . . . the fact that Advance Lights contains less toxins, while still providing a smooth, satisfying taste for smokers, is an important step in the right direction." The press release also made the following claims: "Advance Lights' three part Trionic filter was developed to decrease the levels of many of the principal toxins found in cigarette smoke. . . . The result of this three-stage filter is a significant reduction in many of the toxins delivered to the smoker as compared to levels found in smoke delivered by the leading lights brands."

1170. Liggett. Beginning in late November 2001, Vector Tobacco (100% owner of Liggett) placed an ad in several magazines and other publications stating: "Omni: Reduced carcinogens. Premium taste."

1171. On November 13, 2001, Vector Tobacco (100% owner of Liggett) placed advertisements in several newspapers and other publications, including the Washington Post, and posted on its web site (<http://www.omnicigs.com/prodBenLetter.asp> last viewed October 7, 2002), entitled "An Open Letter to American Smokers," which had the slogan "Omni. The First Reduced Carcinogen Cigarette." in bold, underlined large type. This document was a letter from Bennet LeBow, CEO of Vector Tobacco, and included the following statements:

Omni is important because it is the first reduced carcinogen cigarette that tastes, smokes, and burns just like any other premium

cigarette. As we all know, smoking is addictive and hazardous to your health. However, the medical community has identified specific carcinogens that are a major cause of lung cancer in smokers. In a groundbreaking move, we have greatly reduced many of these. . . . [W]e strongly believe that if you do smoke, OMNI is the best alternative. While OMNI has not yet been proven to reduce health risks, the significant reduction of carcinogen levels is, in our opinion, a major step in the right direction.

1172. Liggett (Vector) advertised the Omni with a misleading slogan. The company knew the phrase "reduced carcinogens/premium taste" was not literally true, but intended to communicate the message that they were trying to reduce the harmful effects of cigarettes to the greatest extent possible, and had reduced carcinogens compared to Marlboro brands.

1173. While Liggett (Vector) has stopped advertisement of its Omni cigarettes, it is still using the potentially misleading "Reduced Carcinogen/Premium Taste" slogan on its point of sale materials and intends to advertise for the Omni again, and to communicate to smokers that Omni cigarettes may reduce harm.

1174. A February 13, 2001 Wall Street Journal article entitled "Vector Vows to Beat Competitors In Race to Produce 'Safer' Cigarette" includes the statements of Vector Tobacco (100% owner of Liggett) that it "predicts that this summer, it will be the first to sell nationally a new, potentially less-toxic cigarette." The articles detailed how Vector is "promising a cigarette that burns tobacco specially treated to reduce potent carcinogens." Vector indicated that the use of palladium also reduces the hazard of its cigarettes: "The result, they claim: They can largely block the formation of cancer-causing agents known as large polycyclic aromatic hydrocarbons, or PAHs." Vector also claimed that its use of genetically modified tobacco will reduce the

harmfulness of OMNI: "These plants, Vector says, are also nearly free of another class of carcinogen, known as tobacco-specific nitrosamines. With palladium and genetic engineering, Mr. LeBow says, Vector will significantly decrease levels of two of the most dangerous kinds of carcinogens in cigarette smoke." Bennet LeBow, CEO of Vector Tobacco stated: "We are not making a 'safe' cigarette. . . . [W]e want to help the people who are addicted. And, quite frankly, hopefully, we'll make a lot of money along the way." Dr. Bereman, Vector scientist, made the following statement: "Smoke from cigarettes treated with the new mixture contains at least 70% less carcinogenic PAHs than smoke from untreated cigarettes – a level that won't cause cancer, Dr. Bereman says."

1175. A February 13, 2002 article by Paul Nowell, Associated Press writer, distributed in various national publications, recounted the statements of Vector Tobacco (100% owner of Liggett) regarding its OMNI cigarette: "This new technology will eliminate one of the most serious cancer causing agents form tobacco smoke." Bennet LeBow, CEO of Vector Tobacco, stated:

In our view, there is great potential in combining Vector Tobacco's significantly PAH-reduced technology with our virtually nicotine-free and TSNA-free tobacco. . . . By producing a cigarette with significantly reduced PAHs and virtually no TSNAs, the two most serious cancer causing agents, we would be giving consumers a new choice about what to smoke. . . . [W]e believe we've eliminated what the health community considers to be the most serious cancer causing agents with these developments.

1176. As noted in an October 6, 2001 article in the Winston-Salem Journal entitled "Vector Plans to Roll Out Omni in Second Half of October; Production of Cigarette That Company Says Has Fewer Carcinogens Began This Week," Vector (100% owner of Liggett)

"says that in Omni, many of the specific carcinogens that have been pinpointed as the major causes of lung cancer in smokers have been slashed." The company classified Omni cigarettes as "less hazardous' smoking products."

1177. An October 19, 2001 article in Miami Daily Business Review entitled "LeBow unbowed; As Bennett LeBow's reduced-carcinogen cigarette hits stores, he does a slow burn over his competitors" stated that Bennet LeBow, Chairman & CEO of Vector Tobacco, which is the 100% owner of Liggett, believes that Omnis will work because the ritual of smoking is more important than the habit: "According to Vector studies, the palladium process reduced some Omni carcinogens by 15 percent to 60 percent. . . ." Bennet LeBow, referring to the Omni, stated: "It may open us to legal liability - I don't care. I tell my people I don't want to hear that. . . . They can still give you emphysema and heart trouble. . . . But we're working on that. We think we can fix that."

1178. The falsity of Liggett's claims regarding OMNI cigarettes was made clear by a November 12, 2001 e-mail from Sharon Boyse of BATCo to several BATCo employees. The e-mail pointed out that several claims made by Vector Tobacco in its web site and in its December 11, 2001 press release regarding the Omni cigarette were misleading to consumers and likely to be misinterpreted:

The Omni data on the website shows reductions in a number of constituents but they fail to draw attention to the fact that their comparisons are between a 12.1 mg tar Omni and a 14.5 mg tar Marlboro FF. There goes an average of 17% reduction across many of their claimed reductions. This would wipe out, among other things, a number of claimed PAH reductions. 2. They fail to draw attention to the increased constituents (formaldehyde at 68%, nitric oxide at around 160%...) in the news release. . . . [W]e have

chosen to write a letter to Vector . . . suggesting that they're a little bit more careful about the way they present their own data, which could lead to misinterpretation.

1179. On June 21, 2002, Bennet Lebow admitted that cigarettes kill and wondered why Liggett can't market Omni cigarettes as a safer cigarette because they might not "kill as much."

(4) Defendants Have Failed to Properly Inform the Public Regarding Low Tar and Filtered Cigarettes

1180. Despite their knowledge that smokers were misled by the misleading "light" descriptors, and despite their knowledge that smokers "compensated" to maintain nicotine delivery, Defendants failed to advise smokers (such as by providing product instructions or informative labeling) how to smoke these cigarettes to actually ensure lower tar deliveries.

1181. Furthermore, despite having evidence that "light" cigarettes provided no health benefits, and may in fact deter people from quitting, Defendants withheld and suppressed such evidence from public dissemination.

1182. Cigarette Company Defendants. In its October 15, 2002 Order in In Re Simon II Litigation (p. 49), the United States District Court for the Eastern District of New York found: "It was not seriously disputed at a prior trial that defendants [referring to PMUSA, RJR, B&W, BAT Industries, p.l.c. (parent company of both Brown & Williamson and BATCo when named as a defendant in Simon II), Lorillard and Liggett] failed to inform the public about their knowledge of the limited health benefits of low tar cigarettes and their knowledge of smoker compensation by a change in the smokers' habits." In re Simon II Litigation, No. 00-CV-5332, Mem. & Ord. at 49 (E.D.N.Y. Oct. 15, 2002).

1183. The tobacco industry deliberately did not perform animal or cell testing on

branded cigarettes as sold so that the public could reasonably determine whether "low tar" products represented as less harmful (for example, Carlton, Now and Cambridge) were in fact likely to be less hazardous than high tar products such as Marlboro and Winston.

1184. Philip Morris. Philip Morris has utilized inserts and onserts in the past to communicate information to consumers. It has not used this mechanism to inform its consumers that Philip Morris agrees that smoking causes disease and is addictive and, other than a limited production run of onserts on cigarette packages in November 2002, Philip Morris has not informed consumers that brand descriptors are based on a test that Philip Morris agrees does not accurately measure tar and nicotine levels ingested by smokers.

1185.

[REDACTED]

[REDACTED]

1186. Beginning in 2000, Philip Morris started informing consumers, in any ad that cites FTC tar and nicotine numbers, that: "The amount of tar and nicotine you get or you inhale will vary based on how you smoke a cigarette." This information did not appear regularly on packaging, but rather on Philip Morris's website and advertisements. Philip Morris likely started this after March 8, 2000.

1187. Other than on its website, Philip Morris had not, prior to November 2002, communicated to consumers that its brand descriptors are based on machine-generated tar and

nicotine yields that Philip Morris agrees bear little relation to the nicotine and tar yields actually obtained smokers.

1188. Brown & Williamson. While Brown & Williamson sends direct mail to smokers with health warnings on promotional offers for tobacco products, they do not send information concerning the lack of health benefits of smoking lights through direct mail.

1189. As the evidence described above indicates, Defendants' deception, suppression, and conspiracy regarding low tar and filtered cigarettes continues to this day.

(5) Defendants' Campaign of Misinformation Through Cigarette Advertising Has Impacted Americans' Decisions To Smoke Cigarettes

1190. Absent Defendants' purposeful conduct in the design and marketing of low tar cigarettes, the rate of smoking cessation would have been higher and the rate of smoking initiation would have been lower.

1191. Concomitantly, the total consumption of cigarettes would have declined more rapidly, and thus Defendants' sales and profitability would have declined, too.

1192. There is substantial scientific evidence that American consumers have reduced their use of cigarettes in response to publicity concerning the health hazards of smoking.

1193. This evidence – that information matters to consumers of cigarettes just as it matters to consumers of virtually every marketed product – is widely recognized among economists and other social scientists.

1194. The evidence that information matters is supported not only by analyses of nation-wide trends, but also by studies of the effects of anti-smoking campaigns in specific states.

1195. Numerous analyses of trends in United States consumption of cigarettes per adult

during 1950–1996, based upon a widely recognized data series from the U.S. Department of Agriculture, show measurable declines in per capita consumption during periods of increased nationwide publicity about the health risks of smoking.

1196. Per capita consumption declined during 1953 and 1954 when reports appeared in the popular press concerning scientific studies on smoking and lung cancer, particularly the 1953 report from Sloan-Kettering Institute that cigarette tars caused cancers in laboratory animals. In June 1954, Doll and Hill published the results of their follow-up study of smoking in relation to lung cancer deaths among 24,000 British male physicians. The results of the American Cancer Society's study of 187,000 men, in which cigarette smokers had higher death rates from coronary heart disease as well as cancer, appeared in August 1954.

1197. Per capita consumption again declined transiently after the appearance in January 1964 of the first Report of the Advisory Committee to the Surgeon General.

1198. Consumption per adult again declined during 1968–1970, after the Federal Communications Commission, applying the Fairness Doctrine in June 1967 and again in March 1969, ruled that television stations must present a significant number of anti-smoking messages during prime viewing hours when cigarette commercials were presented.

1199. The actions of the United States cigarette industry substantially contributed to widespread initiation of smoking behavior among children and adolescents and to the persistence of cigarette smoking among adolescents and adults in the United States (given the Court's findings that the cigarette industry fostered a public message of doubt regarding the health effects of smoking; did not disclose or acknowledge the addictiveness of cigarettes; used advertising and

marketing programs associating smoking with attractive imagery and fostered a political or social culture of acceptance or tolerance of smoking).

1200. There was a 20% reduction in teenage smoking prevalence during 1968-1970 Fairness Doctrine when Public Service Announcements concerning the health hazards of smoking ran in one to four ratio with cigarette advertising.

1201.

[REDACTED]

[REDACTED]

1202. Per capita consumption rebounded during years 1971-1974, after anti-smoking commercials were removed from the airways.

1203. From about 1975 onward, per capita consumption steadily declined as a result of growing public awareness of the hazards of smoking and increasingly prevalent restrictions on smoking in public places.

1204. American adults have likewise quit smoking with increasing frequency in

response to information about the hazards of cigarette use.

1205. Dr. Jeffrey Harris's analysis of surveys performed during 1964-1975, which appeared in the 1979 Surgeon General's Report, strongly suggested that quitting smoking was a major factor in the decline in per capita consumption during 1968 to 1970, when anti-smoking advertisements aired on prime time television.

1206. A similar study performed by Dr. Jeffrey Harris for the 1980 Surgeon General's Report revealed higher quit rates, especially among men, in 1970.

1207. A recent recalculation of historical quit rates by Burns has confirmed the marked rise in quit rates during the prime-time anti-smoking advertisements and a decline in quitting after the barrage of public service ads disappeared from the airways .

1208. Analysis by economists and public health specialists support the conclusion that the initiation rates of young people are enhanced by pro-smoking advertising and depressed by anti-smoking information.

1209. For example, the rise in the rate of initiation among twelve to eighteen year-old girls during the late-1960s and early 1970s paralleled the marketing of cigarette brands specifically targeted to women.

1210. Contrary to the upward trends in teen smoking nationwide, initiation rates in Massachusetts have fallen after a media-based anti-smoking information campaign.

1211. As the 2000 Surgeon General's Report concluded: "Educational strategies, conducted in conjunction with community- and media-based activities, can postpone or prevent smoking onset in 20 to 40 percent of adolescents."

1212. After the publication of the 2000 Surgeon General's Report, Peterson et al. reported the negative results of a school-based trial of the "social influences approach" to reducing adolescent smoking. This study, however, did not test the effect of a media-based information campaign such as the Massachusetts Tobacco Control Program.

E. The Defendants Fraudulently Denied That They Have Targeted the Youth Market

1213. Each Cigarette Company Defendant spends substantial resources on marketing cigarettes every year. Cigarette Company Defendants have used the full range of marketing tools available to them to encourage trial and continuing purchase of their cigarette products by young people, including: advertising on television, radio, and billboards, and in magazines and newspapers; sponsoring events, such as sporting events, bar promotions, festivals, concerts and contests; coupons, price reductions, and free packs with purchase; gifts with purchase (known as "continuity items") such as t-shirts, mugs, and sporting goods; direct-mail marketing through which they sent magazines, "birthday cards" and other materials directly to individuals' homes; distribution of free cigarette samples at retail stores, public events, bars, or other locations; and retail store (known as "point of sale") advertising and promotions.

1214. Cigarette Company Defendants' historical and current expenditures on cigarette advertising and promotion remain high both on an absolute basis and relative to other industries. In the nine year period from 1991-1999, domestic cigarette advertising and promotional expenditures totaled \$51.4 billion dollars (unadjusted for inflation). In 1999 alone, domestic cigarette advertising and promotion totaled \$8.2 billion, an increase of 22% over 1998, and a six-fold increase over 1963, after adjusting for inflation. For example, Philip Morris spent in excess of \$10 billion marketing Marlboro alone from 1997 to 2001, and has more than doubled its marketing expenditures for Marlboro since entering the Master Settlement Agreement ("MSA").

1215. Defendants falsely assert that all of the Cigarette Company Defendants' marketing efforts are directed only at those consumers who may switch between Cigarette Company

Defendants' brands. Since only about 9% of adult smokers switch between Cigarette Company Defendants' brands, brand switching could not possibly justify \$8.2 billion in annual advertising and promotion expenditures.

1216. In fact, Defendants' internal documents show that, historically and currently, Cigarette Company Defendants' marketing targets young people, including those below twenty-one and those below eighteen.

1217. Cigarette Company Defendants' marketing activities are intended to – and have succeeded in – bring new smokers into the market.

1218. Eighty-eight percent (88%) of youth smokers buy the three most advertised brands – Marlboro, Camel, and Newport – brands that less than half of smokers over the age of twenty-five purchase. Marlboro, the most heavily marketed brand, currently holds 55% of the youth market but only 36% of smokers over twenty-five.

1219. Cigarette Company Defendants' internal documents show that they knew that they could not survive absent acquiring youth smokers to replace smokers who have quit or have died. In these documents, Cigarette Company Defendants expressed the view that stimulating youth smoking initiation and retaining and increasing their share of the youth market was important and in fact crucial to the success of their businesses. These documents show that, for many years, Cigarette Company Defendants conducted market research on youth smokers under age twenty-one and knew that the majority of smokers began smoking as youths, develop brand loyalty as youths, and that persons who began smoking when they were teenagers were very likely to remain lifetime smokers. Cigarette Company Defendants also conducted research into young

people's vulnerabilities to cigarette marketing, and knew that youths were highly susceptible to advertising, would underestimate the health risks of smoking, and were price sensitive. Knowing that advertising and promotion stimulated the demand for cigarettes, Cigarette Company Defendants used their knowledge of young people's vulnerabilities gained in their research in order to create marketing campaigns that would and did appeal to youth, in order to induce youth smoking initiation and ensure that young smokers would choose their brands.

1220. Youth smoking initiation continues to be vitally important to Cigarette Company Defendants. In the year 2000, 80% of the consumption of Cigarette Company Defendants' cigarettes in the United States was by persons who had started smoking daily before the age 21 since the issuance of the 1954 Frank Statement, and nearly 60% of the consumption of Cigarette Company Defendants' cigarettes was by persons who started smoking daily before the age 18.

1221. Most children and adolescents select a usual brand of cigarettes to smoke before the age of 18. Nearly three-fourths of all children and adolescents who smoke in the United States try to quit before high school graduation, and most fail to do so.

1222. Independent scientific studies performed by reputable scientists, and published in reputable scientific journals or in official government reports, have confirmed Defendants' knowledge, as set out in their internal documents, that Cigarette Company Defendants' marketing stimulates primary demand for cigarettes and contributes to the continuing use of cigarettes. Over the past ten years, there have been a number of comprehensive reviews of the scientific evidence concerning the effects of cigarette marketing, including advertising and promotion, on smoking decisions by young people. Each review has come to the same conclusion: the weight

of all available evidence, including survey data, scientific studies and experiments, behavioral, studies and econometric studies, supports the conclusions that cigarette marketing is a substantial contributing factor in the smoking behavior of young people, including the decision to begin smoking and the decision to continue smoking.

1223. Independent academic studies have concluded that, historically and currently, cigarette advertising has appealed to children and adolescents. The messages, images, and merchandise used in cigarette advertising have corresponded precisely to adolescent aspirations. Teens smoke the most heavily advertised brands: Marlboro, Camel, and Newport. Studies have found that advertisements targeted to women and the Joe Camel campaign had demonstrable success among adolescents.

1224. The decision to begin smoking or continue smoking is motivated by "affect" (a conglomeration of positive and negative emotions rather than the analysis of quantitative statistical logic (fact). The cigarette consumer responds to ubiquitous and appealing cigarette advertising imagery and seeks quick satisfaction bypassing logical analysis. The prospective consumer of cigarettes does not go through several hierarchical stages of information processing (awareness, knowledge, liking, conviction and purchase) that are associated with the purchase of some other products. Cigarette marketing, including advertising and promotion, is designed to play a key role in this impulsive process by exposing young people to massive amounts of positive imagery associating positive qualities with cigarette smoking. Research in psychology and cognitive neuroscience demonstrates how powerful such imagery can be in suppressing perception of risk and manipulating behavior. Cigarette Company Defendants' internal

marketing research and public marketing practices reveal that they were well aware of this power and exploit it in their marketing campaigns.

1225. Young people are particularly vulnerable to the types of affective advertising and promotion that associate positive imagery with smoking. Young people overestimate smoking prevalence and underestimate smoking risk, in part as a result of this type of marketing campaigns.

1226. Many people, and particularly young people, do not adequately understand and appreciate the cumulative risk that smoking entails. Most smokers only begin to think of risk after they have started to smoke regularly and become addicted. At that point, more than 80% of smokers wish they had never begun to smoke.

1227. Many young smokers tend to believe that smoking the "very next cigarette" poses little or no risk to their health. Because the most serious harmful consequences of smoking are cumulative, occurring in the distant future, and because teenagers lack an understanding of the addictive properties of cigarettes, it is unlikely that concerns about harmful consequences influence the decisions by teenagers to initiate smoking.

1228. Initiation of smoking as a youth is particularly harmful because the earlier one begins smoking, the more likely one will develop a smoking-related disease.

1229. Cigarette smoking, particularly that begun by young people, continues to be the leading cause of preventable disease and premature mortality in the United States. Of children and adolescents who are regular smokers, one out of three will die of smoking-related disease.

1230. In fact, the proportionate impeding effects of childhood smoking on lung growth

exceeds the loss of lung function associated with smoking during adulthood. Lung cancer risk rises exponentially as a function of the duration of smoking, so that the risk at age 50 for a person who began smoking regularly at age 13 is 35% greater than that for a 50-year-old who started smoking at age 23.

1231. Initiation of smoking as a youth is also harmful because, the earlier one begins smoking, the more likely one will become addicted.

1232. Recent studies indicate that the earlier onset of cigarette smoking is associated with heavier smoking. Heavier smokers are not only more likely to experience tobacco-related health problems, they are the least likely to quit smoking. The level of dependence on nicotine in adults has been found to be inversely related to the age of initiation of smoking.

1233. The smoking of as few as 1-5 cigarettes a day is also a predictor of continued smoking and dependence. The risk of dependence (addiction) increases sharply and significantly when the quantity of cigarettes smoked increases from less than one cigarette per day to 1-5 cigarettes per day or from 1-5 cigarettes to half a pack per day. Adolescents, who smoke significantly fewer cigarettes per day than adults, experience significantly higher rates of dependence than adults at the same level of use.

1234. As set forth below, Defendants falsely denied that Cigarette Company Defendants intentionally designed their marketing efforts to entice young people to begin smoking and to continue smoking. The following are representative examples of numerous such false statements.

(1) False Statements

(a) False Statements of The Tobacco Institute

1235. The Tobacco Institute was created in 1958 by American Tobacco Co., Liggett, Lorillard, Philip Morris, R.J. Reynolds, The American Snuff Company, Larus & Brother Co., Inc., and Stephano Brothers, Inc. Although membership fluctuated during the existence of the Tobacco Institute, all Defendants (except BATCo and CTR) created, agreed to fund, and/or over the years did jointly fund and direct the activities of the Tobacco Institute.

1236. On November 20, 1962, Hill & Knowlton on behalf of Philip Morris, R.J. Reynolds, Brown & Williamson, Liggett, Lorillard, and American, through the Tobacco Institute, in response to a comment made by LeRoy Collins, President of the National Association of Broadcasters, that "cigarette advertising is designed primarily to influence high school children," issued a press release entitled "Tobacco Institute Head Calls N.A.B. President's Charges Incorrect." In the press release, George V. Allen, President of the Tobacco Institute, denied that cigarette advertising is focused on children, stating that "the Tobacco industry regards smoking as an adult custom, and the decision to smoke or not to smoke should be made at the age of mature judgment."

1237. According to a Hill & Knowlton, informational memorandum dated June 19, 1963, Allen responded to a question from Peter Bart of the New York Times by stating that "the tobacco industry's position has always been that smoking is an adult custom."

1238. On or about July 9, 1963, Hill & Knowlton on behalf of Philip Morris, R.J. Reynolds, Brown & Williamson, Liggett, Lorillard, and American, through the Tobacco Institute, caused a press release to be sent and delivered by the United States mails to newspapers and

news outlets. This press release stated "the tobacco industry's position that smoking is a custom for adults and that it is not the intent of the industry to promote or encourage smoking among youth" and "[t]he industry wants to make it demonstrably clear that it does not wish to promote or encourage smoking among youth."

1239. On July 22, 1969, Joseph F. Cullman III, Chairman of the Executive Committee of the Tobacco Institute and Chairman of the Board of Philip Morris, testified to the Consumer Subcommittee of the Senate Committee on Commerce that "it is the intention of the cigarette manufacturers to continue to avoid advertising directed at young persons." Cullman further testified that the cigarette industry would submit to a broadcast ban that banned all cigarette advertising from television and radio because: "[y]oung people are exposed to broadcast advertising differently than they are to print advertising. It is well-known that young people spend a great deal of time viewing television and listening to radio; it takes an affirmative act on the part of the viewer or listener to avoid broadcast advertising. By contrast, much less time is spent by young people in reading newspapers and magazines and an affirmative act is required by the reader to see and comprehend such advertising. Objections to cigarette advertising on the broadcast media based on appeal to youth do not apply to cigarette advertising in newspapers and magazines."

1240. In or about September 1975, Hill & Knowlton, on behalf of Philip Morris, R.J. Reynolds, Brown & Williamson, Liggett, Lorillard, and American, through the Tobacco Institute, issued a press release entitled "Cigarette Industry Advertising Standards." The release stated that, as early as 1963, the Tobacco Institute had issued statements denying that the cigarette

industry targeted youth smokers. The press release also repeated Cullman's July 22, 1969 testimony that "it is the intention of the cigarette manufacturers to continue to avoid advertising directed at young persons."

1241. A 1979 Tobacco Institute brochure entitled "Fact or Fancy?" declared that cigarette advertisements create new smokers "[n]o more than advertising a specific brand of toothpaste causes more people to use toothpaste. Cigarette advertising is brand advertising, aimed at interesting smokers in switching brands and creating brand loyalty. . . . The tobacco industry does not try to persuade anyone to smoke. Nor does it discourage anyone who makes up his or her mind to quit."

1242. A May 24, 1979 letter from Horace R. Kornegay, President of the Tobacco Institute, to Joseph A. Califano, Jr., Secretary of the Department of Health, Education and Welfare, was written in response to Califano's statements to the Interagency Council on Smoking and Health on April 26, 1979. Kornegay's letter stated that Califano's "statements reflect the erroneous view that brand advertising has an effect on the decision to begin smoking," and asserted that the 1978 Surgeon General's Report "suggested that the primary motivating factors in smoking by young people were the influence of peers, smoking parents, and older siblings."

1243. An August 1, 1979 document created by the Tobacco Institute stated that smoking is an "adult custom, one to be decided on by mature, informed persons" and that laws prohibiting sale of cigarettes to "youngsters . . . should be vigorously enforced." The document further stated that "the great majority of youngsters have not rushed to judgment about smoking. The majority is the best example for the minority – a lesson the latter need from people who make and sell

cigarettes."

1244. On or about May 13, 1981, Philip Morris, R.J. Reynolds, Brown & Williamson, Liggett, Lorillard, and American, through the Tobacco Institute, issued a press release stating that members of the Tobacco Institute had a "long-standing policy of discouraging smoking by children."

1245. In a 1983 document entitled "Voluntary Initiatives of a Responsible Industry In Advertising," the Tobacco Institute stated that "smoking is an adult custom to be considered only by those mature enough to make an informed decision."

1246. On the nationally televised ABC program "20/20," broadcast on October 20, 1983, Ann Browder, a Tobacco Institute spokesperson, speaking on behalf of Philip Morris, R.J. Reynolds, Brown & Williamson, Liggett, and Lorillard, stated: "We feel very strongly that cigarette smoking is an adult custom that one should not even consider until they've reached the age of maturity" and that the "age of maturity is 21." Browder also stated that "Cigarette manufacturers are not interested in obtaining new business from teenagers. . . . We do everything possible to discourage teenage smoking."

1247. An August 30, 1983 memorandum from a representative of Philip Morris to representatives from the Tobacco Institute, R.J. Reynolds, and Lorillard, enclosed an anti-smoking campaign identified as "the best that has been done on youth smoking [to date]." The advertisement states in bold letters: "We don't think our kids should smoke, either." It goes on to state that: "As with many of life's pleasures, smoking, drinking and driving a car require a knowledge of oneself and a sense of moderation that can only come with age. When our children

acquire this sense of moderation and this knowledge of themselves – and are, therefore, no longer children – they can make their own decisions. Until then, we'll try to help them learn what every human being has always had to learn. When we confuse the pleasures of growing up with the satisfactions of being grown up, we miss a great deal of both." A handwritten notation on the document stated: "This says it well but is not a 'youth program.' It's not addressed to young people but to a nebulous public. It's totally self serving. But great copy!"

1248. On April 1, 1984, the Tobacco Institute initiated a project with the National Association of State Boards of Education to publish a pamphlet "Helping Youth Decide," which advised parents on how to communicate with their children and how to assist them in making decisions on issues such as tobacco and alcohol use, drugs and sex. In an April 12, 1984 memo from Tom Humber to the members of the Tobacco Institute's Executive Committee, Humber explained one of the advantages of working with NASBE: "NASBE will provide us with an established, clear link to all levels of government: federal, state and local."

1249. On September 25, 1984, the Tobacco Institute's Vice President Walker Merryman stated, in a speech pertaining to the "Helping Youth Decide" pamphlet, "[w]e do not want youngsters smoking cigarettes. That has been our policy for many years and it is a policy which has guided and will continue to guide our industry's marketing, promotion and advertising practices."

1250. In a draft of "In the Public Interest: Three Decades of Initiatives by a Responsible Cigarette Industry," dated July 10, 1985, the Tobacco Institute stated: "For the past thirty years – and for the future – this industry has maintained responsible positions in four policy areas of

concern to all Americans . . . : youth smoking, scientific research, truthful advertising, and workplace smoking." This booklet further stated: "Cigarette manufacturers have always believed that the decision to smoke or not is a choice to be made by informed adults" and discussed the adoption of the Code of Cigarette Sampling (a voluntarily adopted pledge by the manufacturing Defendants not to distribute free cigarettes) and the provision of a "free parental guidebook, 'Helping Youth Decide'" as examples of the industry's commitment to diminishing youth smoking. The booklet was published in 1986, and stated: "It has always been the policy of cigarette manufacturers that smoking is a custom for choice by informed adults. In keeping with that its youth advertising restrictions and parental programs continue."

1251. In approximately 1986, the Tobacco Institute prepared a draft of testimony to be delivered at a July 18, 1986 House Energy and Commerce Committee's Subcommittee on Health and the Environment oversight hearing on cigarette advertising and promotion. The draft testimony stated: "[N]either advertising and sampling nor other forms of brand promotion create smokers" and that "the cigarette manufacturers do not want youngsters to smoke."

1252. In 1989, the Tobacco Institute issued a brochure entitled "Smoking and Young People – Where the Tobacco Industry Stands" which stated that the "tobacco industry has long taken the position that smoking is an adult practice to be considered solely by mature, informed persons." The Tobacco Institute further stated that "no other industry in America has taken such direct - and voluntary - action to steer its product away from young people." The Tobacco Institute denied that advertising induces people to begin smoking, stating that "[m]any [studies] have concluded that peer pressure and parental influence are the chief factors in an adolescent's

decision" to smoke and that, "according to many behavioral experts, the answer is an unequivocal no -- there is no significant connection between advertising and the decision to start smoking."

1253. In 1990, the Tobacco Institute revised and republished "In the Public Interest Three Decades of Initiatives by a Responsible Cigarette Industry," originally published in 1986.

1254. In 1990, the Tobacco Institute issued a multi-page advertisement captioned "Cigarette Industry Initiatives Against Youth Smoking" which provided supposed examples of Cigarette Company Defendants' efforts to keep youth from smoking, including the Code of Cigarette Sampling and the ceasing of product placement in movies.

1255. On May 24, 1990, the Tobacco Institute issued a press release which quoted Charles Whitely as testifying to the Senate Committee on Finance: "I know of no other industry in America that has taken such direct, voluntary action to steer its products away from young people."

1256. On October 11, 1990, the Tobacco Institute issued a press release entitled "Major New Initiatives to Discourage Youth Smoking Announced" which stated that the tobacco industry had a "longstanding policy" of discouraging and preventing smoking by youth and announced "five new initiatives that expand and reaffirm the industry's longstanding commitment and positive actions against youth smoking."

1257. In 1991, the Tobacco Institute distributed to the public a document entitled "On Youth Smoking – Tobacco Industry Guidelines," which discussed self-imposed advertising restrictions supposedly designed to "address public concerns about youth smoking." The Tobacco Institute stated that the tobacco industry does "not advertise in publications directed

primarily to persons under 21. . . do[es] not distribute cigarette samples within two blocks of any centers of youth activity, such as playgrounds and schools. . . [does] not distribute cigarette samples in direct response to requests by telephone. . . [and does] not engage in paid movie product or cigarette advertising placements."

1258. In 1991, the Tobacco Institute distributed to the public a booklet entitled "Smoking and Young People - Where the Tobacco Industry Stands," which stated that in 1990, the industry "launched a set of bold, new initiatives designed to ensure that smoking remains an adult custom." Therein, the Tobacco Institute also stated that "[a]ccording to many behavioral experts, the answer is an unequivocal no – there is no significant connection between advertising and the decision to start smoking."

1259. On December 11, 1991, Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard and American, through the Tobacco Institute, issued a press release which criticized a study published in JAMA, accuses it of "glaring omissions and distortions," and stated: "Contrary to the assertion of [the study's] authors, studies suggest that the majority of U.S. smokers are of legal age when they begin to smoke." The press release further stated: "Cigarette ads have no significant effect on the prevalence of smoking by young people."

(b) False Statements of Philip Morris

1260. In 1989, Philip Morris initiated a program called "It's The Law" as part of its publicly-declared intention to lessen underage smoking. In an undated document regarding this program, Philip Morris denied that advertising leads children to smoke, stating: "All that cigarette advertising does is help smokers select a brand; it does not encourage nonsmokers or

kids to smoke."

1261. Doreen Baker, Manager of Marlboro Accounts at Philip Morris, sent a letter dated November 22, 1989 to Don Miller, VP and General Manager, Motorsports International, which stated that Philip Morris's "policy [is] to market to the twenty-one and above aged consumer."

1262. In 1991, Philip Morris placed advertisements which stated that "Philip Morris U.S.A. does not market cigarettes to children because smoking is an adult choice," and that "smoking is an adult decision."

1263. In 1994, Philip Morris created messages intended for public dissemination in rebuttal to the 1994 Surgeon General Report's conclusion that cigarette advertisements contributed to youth smoking. The Philip Morris messages included the statement that "No study has ever been able to draw the conclusion that advertising can cause anyone, particularly kids, to smoke. All that cigarette advertising does is help smokers select a brand; it does not encourage nonsmokers or kids to smoke. Brand recognition does not equate to smoking."

1264. In or about December 1994, Philip Morris prepared a draft press release, which was released in a final version in June 1995, sent and delivered by the United States mails to newspapers and news outlets, and was then disseminated to the public through United States wires. This press release stated that "Philip Morris is taking aggressive steps to keep cigarettes out of the hands of young people" and that Philip Morris sought to eliminate access to cigarettes by minors.

1265. In a February 27, 1996 media training report for Philip Morris International to regional presidents, which provided "key messages," the section entitled "Marketing, Youth

Access and Advertising" included the key message that "[a]dvertising doesn't cause young people to smoke."

1266. On March 4, 1998, Geoffrey Bible, at that time Chairman and CEO of Philip Morris Companies, testified that "We do not market cigarettes to teenagers."

1267. On or about June 2001, Philip Morris posted on its Internet website a document entitled "U.S.A. Marketing Policies," which represented that "All of our brand advertising and promotions are intended for adults who choose to smoke. They serve to enhance brand awareness, recognition and loyalty among adult smokers."

1268. Michael Mahan, Vice President for Marketing and Sales of the Asia Pacific Region for Philip Morris, at his May 31, 2002 deposition in this case, testified that Philip Morris did not study smokers under the age of 18.

1269. Suzanne LeVan, Vice President of Marlboro and former Vice President of Philip Morris Premium Brands, has been at Philip Morris since December 1991. At her June 25, 2002 deposition in this case, LeVan testified that as current head of the Marlboro brand group she is the highest level person at Philip Morris who is responsible for marketing Marlboro. LeVan testified that "Philip Morris markets its brand to adults who choose to smoke" and that "Philip Morris doesn't direct any of its marketing efforts to non-smokers." In response to the question: "Does Philip Morris do anything to recruit non-smokers to begin smoking?" LeVan testified, "No, sir, they do not." And in response to the question "What percentage of Philip Morris' marketing efforts are spent trying to convince minors to smoke Philip Morris brands?" LeVan testified "None. Philip Morris doesn't market to minors" and testified that that was "a true

statement for all of [her] years at Philip Morris."

1270. Richard Camisa, Philip Morris's Director of Media, at his June 28, 2002 deposition in this case, testified that Philip Morris had adopted and applied the 1990 revised voluntary industry Advertising Code in determining the placement of cigarette media which stated that "Cigarette advertising shall not appear in publications directed primarily to those under 21 years of age, including school, college or university media, such as athletic, theatrical, other programs, comic books or comic supplements."

1271. Philip Morris's internet website, www.philipmorrisusa.com, which was launched on October 13, 1999, stated in part as follows: "Our goal is to be the most responsible, effective, and respected developer, manufacturer and marketer of consumer products, especially products intended for adults We will support our Mission by proactively engaging with our stakeholders to enhance our ability to act in a way that is consistent with society's expectations of a responsible company." The website further stated that "Philip Morris is committed to acting responsibly in marketing its tobacco products to adults who choose to smoke. We demonstrate this commitment by implementing all of our marketing programs in compliance with both the letter and the spirit of the laws, rules, policies and restrictions that govern our business practices." Regarding Philip Morris's Youth Smoking Prevention program, the website stated as follows: "At Philip Morris, Inc., we believe we have an important role to play in helping to prevent youth smoking. As the manufacturer of a product intended for adults that has health risks, we have a responsibility to help prevent kids from using it. We take our responsibility very seriously."

1272. As of January 13, 2002, a section of Philip Morris's Internet website,

www.philipmorrisusa.com, entitled "Responsible Marketing" stated in part that "we demonstrate our commitment to responsibly marketing our products to adult smokers by developing and implementing programs that comply with both the letter and the spirit of the laws, rules, policies and agreements that govern our business practices . . . [including] PM USA's Marketing Practices. . . . Our marketing programs are designed to enhance brand awareness, recognition and loyalty among adult smokers, while honoring the Company's commitment to responsible marketing."

(c) False Statements of Liggett

1273. On May 18, 1979, Raymond J. Mulligan, then President of Liggett, sent a letter to Joseph A. Califano, Jr., Secretary of the Department of Health, Education and Welfare, in response to a April 26, 1979 letter sent by Califano which identified that millions of children are regular cigarette smokers and urged Liggett to dedicate a percentage of its advertising budget to youth smoking prevention programs. Mulligan stated that "this Company does not promote or advertise its cigarette products to children or young people under twenty-one years of age, nor are our promotional activities and advertising aimed at encouraging such children and young people to begin smoking or even continue smoking." Mulligan's letter further stated, "Cigarette smoking is an adult pleasure and custom" and referred to industry policies aimed at "limiting the pleasure of smoking to adults."

1274. On July 13, 1999, Ronald S. Fulford, the Chief Executive Officer of Liggett, sent an internal memorandum to all employees which stated that "[i]t is Liggett's policy to scrupulously avoid any and all advertising or marketing which would appeal to children or

adolescents."

(d) False Statements of Lorillard

1275. In a January 6, 1971 letter to Michael. Pertschuk, General Counsel for the United States Senate Commerce Committee, Arthur Stevens, Lorillard General Counsel, responded to a Consumer Reports story which discussed Gaberman's letter. Stevens's letter stated that "[i]t is Lorillard's policy and practice to avoid directing its advertising or promotions to young people. Therefore, we sincerely regret any misunderstanding which may have arisen in this regard as a result of the actions referred to in the Consumer Reports story, and trust that the information we have supplied will demonstrate that we are continuing to avoid any such appeals and will continue to avoid them in the future."

1276. On March 25, 1992, Stevens, sent a memorandum to Gary W. Garson, Loews Vice President, Deputy General Counsel and Assistant Secretary, entitled "Loews 1992 Annual Meeting Shareholder Proposals 5 and 6." This memo stated that "[t]he WSJ article of March 13, 1992 reported the R.J. Reynolds response to this survey, viz, that teenagers are influenced in both their decision to smoke, and their brand selection, by the practices of their peers and families, rather than by advertising. Our MRD [Marketing Research Department] people agree with that conclusion."

1277. In his April 2, 2002 deposition in this case, Steven C. Watson, Lorillard Vice President, External Affairs, testified that, in 2001, he caused to be issued a press release stating that "Lorillard Tobacco Company has never marketed or sold its products to youth" which was transmitted electronically by e-mail from North Carolina to P.R. Newswire in New York, and

distributed from there by wire to various news agencies, to be published in newspapers, magazines or similar publications.

1278. In June 2001, Lorillard posted on its Internet website a document entitled "Marketing and Promotion" which stated that "Lorillard does not and will not design or implement any marketing or promotional program intended to encourage youth to smoke cigarettes, and will continue to utilize on those advertising, promotional and marketing materials that do not, directly or indirectly, target youth."

1279. George Telford, Vice President of Brand Marketing for Lorillard since 1990 with responsibility for developing Lorillard's annual strategic marketing plans, testified at his June 26, 2002 deposition in this case that the purpose of Lorillard's marketing and promotion efforts is to retain current smokers of Lorillard products and to convince competitive smokers to switch to Lorillard products. Telford also testified that, even though the legal smoking age is 18 in most states, Lorillard has considered the target market for Newport to be twenty-one to thirty-four year- olds since 1994.

(e) False Statements of BATCo and Brown & Williamson

1280. On May 4, 1979, Brown & Williamson Chairman and Chief Executive Officer Charles I. McCarty sent a letter to Joseph A. Califano, Jr., Secretary of the Department of Health, Education and Welfare, in response to an April 26, 1979 letter from Califano that stated that millions of children are regular cigarette smokers and urged Brown & Williamson to dedicate a percentage of its advertising budget to youth smoking prevention efforts. McCarty stated that Brown & Williamson had a "policy against advertising or promoting the sale of cigarettes to

persons under 21," and stated that Brown & Williamson "does not have at hand the research data and other information necessary to a responsible analysis of the suggestion made in [Califano's April 26 letter]."

1281. On June 1, 1979, McCarty sent a second letter to Califano responding to Califano's April 26, 1979 letter. In this letter, McCarty stated: "We maintain a strict policy against promoting cigarettes to persons under 21 years of age." McCarty further stated: "We do not want children to smoke not because we agree with your oft-repeated slogan that smoking is 'slow-motion suicide' but because the decision whether to smoke, we think, is a decision which should be made by adults, not children I have serious doubts about the effectiveness of any campaign directed toward children advising them to postpone making the decision to smoke until they are adults. Such a campaign could backfire. Children might elect to smoke as a rebellion against authority or in an attempt to show adult behavior."

1282. The "British American Tobacco Social Report 2001/2002," in response to the question of whether BATCo used advertising to encourage people to begin smoking, stated: "Our companies take care to ensure that their advertising does not encourage people to start smoking, to smoke more or not to quit. Our companies' advertising aims to inform adult smokers about British American Tobacco brands so that they will switch from competitor brands to ours, or if they are already a smoker of our brands will remain so." BATCo further stated: "Numerous research studies have sought to establish why people start to smoke but none has identified advertising as the primary motivation." In a section entitled "Tackling Under Age Smoking," the report stated: "We are working hard to help tackle under age smoking through Youth Smoking

Prevention (YSP) programmes, believing this to be a proper part of product stewardship."

1283. In a document entitled "Statement of Business Conduct" dated December 21, 1993, BATCo stated that "tobacco advertising and marketing programs are used to cause existing adult smokers to switch from one brand to another and are not used to encourage young people to start smoking." This "Statement" indicated that it applied to "all directors, officers, and employees" at BATCo.

1284. In a April 11, 1997 letter from Brown & Williamson Chairman and CEO Nicholas G. Brookes to BAT (Holdings) Ltd's Ulrich Herter who also served as a BATCo officer,, Brookes stated that "B&W is committed to the principle that smoking is an adult custom and directs all of its marketing, advertising and sales effort to adult smokers 21 years of age and older."

1285. In 1998, Brown & Williamson's Internet website included a document entitled "Marketing & Consumer Principles and Practices," which stated that "we conduct our business in a principled manner to assure that our cigarettes are marketed responsibly, and that our advertising, promotion and sponsorship programs are not directed toward youth. Although state law permits individuals under the age of twenty-one to purchase tobacco products, the intended audience for all B&W marketing programs is adults twenty-one and over. Hence, the purpose of B&W's marketing programs is to encourage smokers twenty-one and over to select B&W brands."

1286. During 1999 and through June 2001, Brown & Williamson's website included a document entitled "Hot Topics: Corporate Responsibility." The section of the document entitled "Marketing Principles and Practices: Advertising" stated that "the intended audience for all B&W

marketing programs is adults 21 and over."

1287. In a press release issued on August 15, 2001, Brown & Williamson stated that it had asked "the New York Times to issue an official apology and correction for its page one story today incorrectly stating that the company is advertising its products in magazines with significant numbers of young readers. [Brown & Williamson] provided . . . information that shows the company does not advertise in youth-oriented publications." The release further stated: "Beginning shortly, B&W ads will be carried only in those publications that are mailed to adults 21 years of age and older. The magazines match names on their subscriber lists against databases that confirm the recipient is at least 21 years old. B&W ads will not appear in newsstand editions of those publications."

1288. Sharon Smith, Director of Marketing Services and Operations at Brown & Williamson, testified on February 28, 2002 that Brown & Williamson's policy is only to advertise and market to smokers twenty-one and older. Smith further testified that "[t]he purpose of [Brown & Williamson] advertising is to convince adult smokers to choose our brands. Our understanding of established products (products such as cigarettes that have been around for awhile) is that advertising is only relevant to people who are already interested in the product category." Smith testified that Brown & Williamson markets to attract switchers from competitive brands, Marlboro, Winston, and Camel.

1289. In her April 17, 2002 deposition in this case, Claudia "Corky" Newton, Brown & Williamson Vice President, Corporate Responsibility and Youth Smoking Prevention until 2001, testified that advertising and marketing influences brand choice, not smoking initiation. Newton

testified that she had reached that conclusion based on the results of surveys of smokers that asked the open-ended question, "Why did you start smoking?"

1290. At her June 20, 2002 deposition in this case, Susan Ivey, President and Chief Executive Officer of Brown & Williamson, testified that Brown & Williamson "clearly target[s] adults in our marketing efforts." Ivey further testified that Brown & Williamson does not "talk to anyone under 21 years of age in the context of market research" and that Brown & Williamson does not "have any research ourselves on anybody under 21, on readership or otherwise." When asked why Brown & Williamson chose 21 rather than 18, she testified that "by selecting 21, [Brown & Williamson is] further trying to create the buffer so that it does not go below that." She further testified that, regarding Brown & Williamson advertisements placed in magazines, Brown & Williamson "used publisher's data and made sure that the editorial content of the magazine . . . was certainly targeted toward adults, and we had numerous procedures in-house to verify this appeal to the twenty-one-plus age group."

1291. Mark D. Smith, Brown & Williamson Director of Public Affairs, at his June 25, 2002 deposition in this case, testified that Brown & Williamson never marketed cigarettes to youth.

1292. Brennan Dawson, Brown & Williamson Vice President for External Affairs, at her July 1, 2002 deposition in this case, testified that the forces driving adult brand choice and youth smoking initiation are different: "[T]here is a very large distinction between what makes, especially young people, begin to smoke and what then divides up the market of predominantly adults." Dawson testified that advertising drives adult brand choices, but not youth brand

choices.

(f) False Statements of R.J. Reynolds

1293. A May 29, 1979 letter written on R.J. Reynolds letterhead from William D. Hobbs, then Chairman and Chief Executive Officer of R.J. Reynolds, to Joseph A. Califano, Jr., Secretary of the Department of Health, Education and Welfare, Hobbs stated that, "we sincerely believe cigarette advertising plays no part in the process which causes teenagers to take up smoking and feel your suggestion that our Company participate in a massive campaign aimed at teenagers is misplaced."

1294. In a press release drafted on January 13, 1984, intended for release on January 30, 1984, David B. Fishel, Vice President of Public Relations for R.J. Reynolds, stated that "our long-standing position has been that smoking is an adult custom, and we do not believe young people should smoke."

1295. A January 17, 1984 R.J. Reynolds document entitled "Questions and Answers" stated, "We do not target our advertising to minors We do not develop marketing plans against young people, we do not advertise to young people, we do not conduct consumer surveys among young people, and we have no intention of ever making any efforts to bring them into our market."

1296. In or about April 1984, R.J. Reynolds placed in numerous publications nationwide, including the weekly magazine U.S. News and World Reports on April 19, 1984, an advertisement entitled "We don't advertise to children." This advertisement stated that "we're running ads aimed specifically at young people advising them that we think smoking is strictly

for adults." It further stated that "research shows that among all the factors that can influence a young person to start smoking, advertising is insignificant. Kids just don't pay attention to cigarette ads [A]ll of our cigarette ads are what we call 'brand advertising.' Its purpose is to get smokers of competitive products to switch to one of our brands, and to build the loyalty of those who already smoke one of our brands. . . . Getting smokers to switch is virtually the only way a cigarette brand can meaningfully increase its business."

1297. A Draft Marketing Assistant Training Manual dated May 14, 1986, created by the R.J. Reynolds Law Department, stated: "The company does not market its products to youth. We believe that smoking is an adult custom; therefore, we do not market our products to persons under 18 years of age, nor do we research persons under that age. The Code of Cigarette Sampling . . . to which we subscribe, states that sample cigarettes shall not be distributed in public places to persons under 21 years of age -- we abide by this code." The manual further stated that "The Company has no interest in getting non-smokers to smoke. For this reason, neither our research nor our advertising concerns itself with non-smokers." Additionally, the manual stated that "We use [the term "young adult smokers"] to refer to smokers who are at the lower end of the adult spectrum, i.e. 18 and above. To avoid any misconception about our intention to reach only adult smokers, we use the phrase 'younger adult smoker,' and never 'youth', 'kids', 'young people', etc."

1298. An R.J. Reynolds document containing talking points prepared for public dissemination in response to a statement made by Congressman T. Lukens regarding R.J. Reynolds's Supercross (stadium motorcycle racing event) contract was apparently drafted in

1989. The document stated that R.J. Reynolds's signs placed at sports events were intended only to impact attendees and not television viewers, and denied that R.J. Reynolds's cigarette advertising signs were placed for maximum television exposure.

1299. James W. Johnston, Chairman and Chief Executive Officer of R.J. Reynolds, sent a letter dated March 5, 1990, to Mark Green, New York City Commissioner of Consumer Affairs, in response to a letter sent by Green to Louis V. Gerstner, President of R.J. Reynolds, in which Green had complained that the "Joe Camel" advertising campaign appealed to youths. Johnston stated that it "has long been an R.J. Reynolds policy not to induce youth to smoke," and further stated that, as CEO of R.J. Reynolds, "I have reinforced this policy," and "I see no basis to conclude that R.J. Reynolds has conducted itself in an unethical, illegal or misleading manner."

1300. In a May 3, 1990 letter addressed to Sales Representatives, J.P. McMahon, R.J. Reynolds Division Manager, stated, "It has always been . . . [R.J. Reynolds's] policy that we do not promote or sell our cigarette products to anyone under the age of 21."

1301. On September 18, 1990, Joan F. Cockerham, R.J. Reynolds Public Relations Department, sent a letter to public citizen Joanna Brown in response to a letter from Brown expressing concern that the Joe Camel campaign appealed to youth. Cockerham stated, "Our intention with this campaign, as with all of our advertising, is to appeal only to adult smokers. We would not have launched the current Camel campaign if we thought its appeal was to anyone other than this group."

1302. In his May 2, 2002 deposition in this case, Edmund Conger Leary, Senior Vice President of Marketing and President of Sports Marketing for R.J. Reynolds, testified that R.J.

Reynolds "marketed to adults 18 and up" prior to 1992.

1303. In her June 27, 2001 deposition in this case, Diane Stewart Burrows of the R.J. Reynolds Marketing Development Department testified that in 1992, R.J. Reynolds changed to a policy of not marketing to people under age twenty-one.

1304. On January 28, 1992, R.J. Reynolds knowingly caused to be sent and delivered by the United States mails a letter addressed to James Harrison, President of the Vermont Retail Grocers Association, from Yancey W. Ford, Jr., Executive Vice President for Sales of Reynolds, which stated that "R.J. Reynolds Tobacco Co. does not want youth to smoke" and denied that the Joe Camel advertising campaign was directed at youth.

1305. James C. Schroer, R.J. Reynolds Executive Vice President Marketing and Sales, in an internal memorandum dated May 28, 1992, to marketing staff, wrote, "None of our competitors in their public statements admit that they advertise or promote their products to anyone under 21." The memorandum indicated that R.J. Reynolds marketing and advertising policy would be revised to conform to competitors' public statements and stated that R.J. Reynolds joins "the ranks of our competitors and limit[s] our advertising and marketing efforts to smokers 21 years of age and older." The memorandum indicated that Schroer had made the decision jointly with R.J. Reynolds senior executives Jim Johnston, Dave Iauco, and Ernie Fackelman.

1306. On or about August 28, 1992, R.J. Reynolds knowingly caused to be sent and delivered by the United States mails a letter addressed to Dr. Francis A. Neelon, Editor of the North Carolina Medical Journal, purporting to be from Dr. Robert G. Fletcher, Medical Director

of R.J. Reynolds, but bearing a handwritten notation on the copy retained by Reynolds stating that it was "written by SWM for Dr. Fletcher." The letter complained about an article in the North Carolina Medical Journal, and stated about the author of the article, "He claims the tobacco industry spends huge amounts of money promoting its products to youth. This is blatantly false. None of Reynolds Tobacco's product advertising or promotions are directed toward anyone under the legal age to smoke." The letter further stated that "[p]eer pressure is the main influence prompting children to start smoking."

1307. In August 1994, R.J. Reynolds stated to the U.S. House of Representatives Committee on Energy and Commerce, Subcommittee on Health and Environment, that "radio and television exposure is not a motivating consideration for Reynolds in deciding whether to sponsor an event or a vehicle participating in an event."

1308. At the 1998 Minnesota tobacco trial, Lynn J. Beasley, Executive Vice President for Marketing, was asked if "getting new smokers into the market" was ever an objective of R.J. Reynolds's marketing. She testified: "No it has never been."

1309. As of June 2001, the R.J. Reynolds Internet website contained a document entitled "Marketing Philosophy," which stated that "Reynolds Tobacco is not interested in, and does nothing aimed at, trying to persuade any nonsmokers to begin smoking."

1310. In his May 2, 2002 deposition in this case, Edmund Conger Leary, Senior Vice President for Marketing and President of Sports Marketing for R.J. Reynolds, testified that R.J. Reynolds marketed "to adult smokers twenty-one and over," and that "by the time [R.J. Reynolds is] talking to any consumer, they've already chosen to smoke."

1311. In his June 12, 2002 deposition in this case, R.J. Reynolds President and Chief Executive Officer Andrew Schindler testified that R.J. Reynolds does not market to anyone under twenty-one in order to create a "buffer" between adult smokers and youth. Schindler described R.J. Reynolds's marketing policy as: "I will never talk to anybody about any marketing idea, packaging, promotion, [who is] under twenty-one years old." In a previous deposition, Schindler had testified that "We only talk to smokers twenty-one and above. We don't talk to anybody that's eighteen, nineteen, or twenty that is of legal age to use the product." Schindler further testified that not marketing to minors is embedded in the culture of the company, and that R.J. Reynolds does not try to get any non-smokers to start smoking, nor to urge smokers not to quit or to delay or slow down the quitting process. Schindler further testified that R.J. Reynolds "absolutely" does not want to design a product that might appeal to children, and that R.J. Reynolds would never design a cigarette that appeals to minors.

1312. As of January 13, 2003, the R.J. Reynolds website, relating to the company's position on youth smoking, stated: "We do not want children to smoke" and "As a responsible manufacturer and marketer of adult products, we make every effort to ensure that all of our actions are guided by this basic belief."

(2) The Advertising Code

1313. In 1964, Cigarette Company Defendants, through the Tobacco Institute, under threat of federal regulation, adopted a voluntary industry-wide Advertising and Promotion Code ("Advertising Code" or "Code") which the industry claimed prohibited them from advertising to underage smokers.

1314. Adoption of the Code and Defendants' subsequent public statements regarding the Code were in fact a public relations gambit designed to assuage the public's concerns about cigarette marketing targeted at youth. Although Defendants made numerous public statements that the Code prevented them from targeting youth, Defendants knew that the Code did not prevent them from doing so, and that their statements to the contrary were in fact false. Defendants wrote the Code so as to contain loopholes that would permit them to continue to target youth with their marketing. Moreover, after adopting the Code, Defendants did not follow many of the Code's provisions and continue not to follow them. By stating publicly that the Code prevented them from marketing to youth, Defendants used the Code to mislead the American public.

(a) Promulgation of the Advertising Code

1315. On January 25, 1964, the Federal Trade Commission ("FTC") published a proposed Trade Regulation Rule for the prevention of unfair or deceptive advertising and labeling of cigarettes in relation to the health hazards of smoking and gave notice of a proceeding for the promulgation of the Rule.

1316. To avoid regulation by the FTC, Defendants adopted the Cigarette Advertising and Promotion Code in April 1964. Defendants claim that they have obeyed and continue to obey the 1964 Code, which was last revised in December 1990. Key aspects of the Code include, but are not limited to, provisions prohibiting: (1) advertising that appears in magazines primarily directed to persons under twenty-one years of age; (2) advertising that represents cigarette smoking as essential to social prominence, distinction, success, or sexual attraction; (3)

advertising using models or other characterizations who appear to be under 25 years of age; (4) advertising suggesting that healthy looking models or characterizations derive their attractiveness from smoking or that good health is due to smoking; (5) advertising depicting a smoker as any person participating in, or obviously having just participated in, a physical activity requiring stamina or athletic conditioning beyond normal recreation; (6) advertising making health claims; (7) using sports celebrities that have special appeal to persons under twenty-one years of age; and (8) sampling to persons under twenty-one.

1317. Defendants made public their adoption of the Code in an attempt to gain positive publicity and to persuade the public that they did not target youth with their marketing.

1318. For example, on April 27, 1964, Philip Morris, Brown & Williamson, Lorillard, Liggett, R.J. Reynolds, and American Tobacco, through the Tobacco Institute, issued a press release entitled "Cigarette Manufacturers Announce Advertising Code" to announce the Cigarette Advertising Code establishing "uniform standards for cigarette advertising."

1319. Authority to enforce the 1964 Code was vested in a Code Administrator. The Code stated that the Administrator was to be an independent person who would, among other duties, evaluate Cigarette Company Defendants' marketing efforts to ensure that they did not target young people. The Code vested in the Administrator the power to reject marketing that inappropriately appealed to youth. The first and only Administrator was former Governor Robert B. Meyner of New Jersey, who could assess damages of up to \$100,000 for violations.

1320. Governor Meyner, the only Code Administrator, was able to effect only minor changes in advertising practices during his time in that office. For example, in 1966, Governor

Meyner issued a set of procedural regulations, rejected a number of advertisements, and issued a rule that cigarettes could not be advertised during television shows for which over 45% of the viewing audience was under twenty-one.

1321. Governor Meyner found that, when he sought to exercise the full scope of his authority under the Code, Cigarette Company Defendants simply withdrew from his supervision. Ultimately after the broadcast ban was implemented in 1970, Cigarette Company Defendants were left to police their own conduct in accordance with the Code.

1322. For example, on March 25, 1966, Manuel Yellen, Lorillard's Chief Executive Officer, wrote to Governor Meyner withdrawing his company's participation. Yellen stated: "The Code was essentially the cigarette industry's response to a recognized need for industry self-regulation during a time of uncertainty over the course of future legislative and regulatory action. It is our belief that the circumstances which led to the establishment of the Code administration have now significantly changed. . . . Accordingly, we now wish to advise you of our resignation We shall also continue to adhere to those principles underlying the provisions of Article IV, Section 1, of the Cigarette Advertising Code dealing with limitations on advertising to youth."

1323. The tobacco industry promulgated a separate Code of Cigarette Sampling Practices in 1983, prohibiting the distribution of free samples to non-smokers or those under 21, or near schools or any other center of youth activity. Like the Advertising Code, however, the Sampling Code is lacking any credible enforcement mechanism. Cigarette companies are to police their own sampling personnel, a requirement in direct conflict with the companies' goal of increasing the smoking market.

1324. Despite the withdrawal of all Cigarette Company Defendants from the supervision of the Code Administrator twenty years earlier, the Tobacco Institute, on behalf of Cigarette Company Defendants, issued a multi-page advertisement in 1990 captioned "Cigarette Industry Initiatives Against Youth Smoking" emphasizing the cigarette manufacturers' opposition to youth smoking and stating that Cigarette Company Defendants continued to obey the marketing provisions in the Code.

(b) Defendants Disregard and Violate the Code, While Continuing to Make False Public Statements that They Obey It

1325. The Tobacco Institute, on behalf of the Cigarette Company Defendants, publicly stated that the 1964 Code prohibited "advertising, marketing and sampling directed at young people."

1326. Indeed, each Cigarette Company Defendant continues to state to the public on its website and in other public statements that it has adopted the Code, and that it follows the Code in planning and execution of its cigarette marketing. These statements are knowingly false and misleading. For example, a December 1990 pamphlet published by the Tobacco Institute, entitled "Cigarette Advertising and Promotion Code," stated, "The cigarette manufacturers advertise and promote their products only to adult smokers . . . [and] have adopted the following Code to emphasize their policy that smoking is solely for adults."

1327. As stated in a November 20, 1990 memorandum written by Ronald Goldbrenner, Lorillard internal counsel, Defendants intended the Code to be interpreted by the public as disallowing "advertising or promoting" to "anyone under twenty-one." Goldbrenner indicated that the revised 1990 Code would "go into effect on Dec. 11, 1990, and will be announced with

much fanfare and P.R."

1328. As early as 1967, the FTC Report to Congress pointed out "loopholes" contained in the language of the Advertising Code which stated that "Cigarette advertising shall not appear . . . [o]n television or radio programs, or in publications directed primarily to persons under 21 years of age Cigarette advertising shall not depict as a smoker any persons participating in, or obviously just having participated in, physical activity requiring stamina or athletic conditioning beyond that of normal recreation." The FTC Report criticized cigarette advertising for exploiting these loopholes by appearing during television shows with an audience of at least 45% of its viewers under twenty-one; for portraying physical activity as long as the smoker is not a participant; and for implying that smoking contributes to success, even if it is not essential to it.

1329. Cigarette Company Defendants did not, and have not to this day, changed the language of the Advertising Code to remove these loopholes. Their updated versions of the Code contain the identical language cited by the FTC Report.

1330. Despite provisions in the Code forbidding marketing directed at young people, and their public statements that the Code itself prohibited such marketing, Cigarette Company Defendants continued to target young people with their marketing practices, such as advertising in school yearbooks, on comic pages, television and radio broadcasts, movie placements, unrestricted sampling, making health claims, and using sports heroes and other celebrities to hawk their products. Many more examples of Cigarette Company Defendants' marketing to youth may be found directly below this section, organized by company.

1331. In addition to routinely violating the Code by targeting marketing activities to

persons under twenty-one, the Cigarette Company Defendants also violate the Code provision that specifically prohibits advertising depicting a smoker as any person participating in, or obviously having just participated in, a physical activity requiring stamina or athletic conditioning beyond normal recreation. Such violations include Cigarette Company Defendants' advertisements depicting Marlboro cowboys' athletic prowess in horseback riding and cattle roping, Marlboro race car drivers, Viceroy race car drivers, and Vantage downhill ski racers. These advertisements, and many others, exploit the loophole which Defendants intentionally created in the Code by not picturing the individual actually smoking while engaged in the physical activity.

1332. In cigarette advertising and promotions related to sports sponsorships, cigarette smoking is also associated with physical power and endurance violating the prohibitions of the Code.

1333. The Cigarette Company Defendants also violate the Code provision that specifically prohibits advertising depicting cigarettes as essential to social prominence, distinction or success. Such violations include Vantage advertisements using the slogan "Taste of Success" and similar advertising. These advertisements, and many others, exploit the loophole which Defendants intentionally created in the Code by inferring that smoking contributes to success, but not explicitly stating that smoking is "essential" to success.

1334. Cigarette Company Defendants violate the Code provision that specifically prohibits advertising depicting cigarettes as essential to sexual attraction. Such violations include Newport's "Alive with Pleasure" campaign showing young people in sexually suggestive

situations. These advertisements, and many others, exploit the loophole which Defendants intentionally created in the Code by inferring that smoking contributes to sexual attraction, but not explicitly stating that smoking is "essential" to sexual attraction.

1335. Cigarette Company Defendants also violate the Code provision that states "[n]o one depicted in cigarette advertising shall be or appear to be under 25 years of age." For example, Brown & Williamson's Lucky Strike advertising campaign uses a model whose age cannot be determined because only his torso, arm, leg, and hand holding a pack of Kools are visible. Brown & Williamson knew from focus group research that respondents could not tell the age of a male model posed in this way.

(c) Defendants' Statements and Actions Suggest They Will Continue To Make False Public Statements Regarding the Code and Mislead the Public

1336. Philip Morris continues to state, as shown through the testimony of Richard Camisa, Philip Morris Director of Media, in this case, that it still adheres to the 1990 revised Advertising Code in determining the placement of cigarette media, including the provision that reads: "Advertising: Cigarette advertising shall not appear in publications directed primarily to those under 21 years of age, including school, college or university media, such as athletic, theatrical, other programs, comic books or comic supplements." As shown under the section that discusses Philip Morris's advertising policies, Philip Morris continues to violate this section of the Code.

1337. As recently as March 10, 2002, Philip Morris's Board of Directors cited the Advertising Code as a reason for recommending a vote against a shareholder proposal that would

have provided for independent review of all marketing activities to eliminate activities that appealed to young people age 12 to 17 years old. Philip Morris stated that adoption of this shareholder proposal was unnecessary because "Philip Morris U.S.A. has a long-standing commitment to direct its advertising only to adults who choose to smoke; complies with an industry code and company policy that help ensure that its marketing efforts are directed only at adults who choose to smoke; is subject to comprehensive advertising restrictions and monitoring provisions of the master settlement agreement that prohibit the targeting of youth in the advertising, promotion or marketing of tobacco products; and has launched its own comprehensive youth smoking prevention effort, including advertising specifically designed to help prevent youth smoking."

1338. Denise Keane, Philip Morris General Counsel since January 2001, and Senior Vice President at Philip Morris Companies from 1997 to 2001, at her October 1, 2002 deposition in this case, testified that Philip Morris has its own internal advertising and marketing guidelines that remain in force after the MSA.

1339. Although the Advertising Code states that cigarette advertising shall not appear in publications directed primarily to those under twenty-one years of age, including school, college or university media, in 1995, Philip Morris tracked the smoking preferences of college kids through an analysis of College Scan 1995, a nationally projectable telephone study conducted among 3,000 full time college students 18+ years of age in Spring 1995. The Philip Morris analysis stated that "Marlboro's share reached an all-time high (61.4%) in 1995, Camels's share continued to decline, and college smoking incidence . . . historically low, appeared to be

stabilizing at about 14%." The analysis also concluded that "Philip Morris's share of adult college smokers (69.3%) is up in 1995 (+5.3%). The gain [being] traceable mainly to Marlboro and Parliament . . . [that] among full time college students, R.J. Reynolds's share has been declining since the price reduction of Marlboro Friday in 1993 . . . [that] together, Marlboro and Camel comprise 80.2% of the college market . . . [that] Marlboro's growth has come largely at the expense of Camel . . . and Salem . . . that Marlboro had reached all time highs among 18-19 and 20-23 year old adult full time college students in 1995 . . . and [that] Camel had declined among 18-19 and 20-23 year old full-time college students."

1340. When asked whether the Advertising Code's prohibition on advertising in school, college or university media extended to a prohibition on research into the smoking habits and brand preferences of college students, Nancy Lund, Senior Vice President for Marketing at Philip Morris, testified at her June 27, 2002 deposition in this case that, while Philip Morris has a nominal policy to research "only adult smokers," she was not sure whether Philip Morris made a provision beyond that.

1341. Although Philip Morris continues to make public statements that it adheres to the Advertising Code in determining the placement of cigarette advertisements in publications directed primarily to those under twenty-one years of age, testimony in this case by its executives show otherwise. For example, Richard Camisa, who has been the Director of Media at Philip Morris since April 1998, a former Marlboro brand manager, and a Philip Morris employee since 1979, testified when shown a copy of the Advertising Code then still in place: (1) that he did not recognize the Advertising Code of 1964; (2) did not recognize the term "Code Administrator;"

(3) did not know how Philip Morris interpreted the term "Code Administrator;" and (4) did not know whether the company had a Code Administrator as the term is used in the Code.

1342. Robert L. Mikulay, a Senior Vice President for Marketing at Philip Morris, testified in this case that Philip Morris did not, from at least 1985, follow the provision of the Advertising Code requiring an impartial administrator to review advertising as there was no Administrator.

1343. With respect to the provision of the Code that states, "Cigarette advertising shall not suggest that smoking is essential to social prominence, distinction, success or sexual attraction, nor shall it picture a person smoking in an exaggerated manner," Camisa testified that: (1) he could not explain its meaning and stated that it "could mean different things to different people" within Philip Morris; (2) could not provide a single example of an advertisement that might improperly suggest that smoking is essential to sexual attraction; (3) no one at Philip Morris ever provided him with a list of objective standards or characteristics to determine whether an advertisement violated this provision; and (4) he was not "trained" to determine whether an advertisement suggests that a person's attractiveness and good health is due to cigarette smoking.

1344. With respect to the same provision of the Advertising Code, Nancy Brennan Lund, the Senior Vice President for Marketing at Philip Morris, stated at her June 27, 2002 deposition in this case that "it means that we are not able to say that, because you smoke a cigarette, you will more likely be socially prominent or successful or attractive sexually."

1345. Robert L. Mikulay, a Senior Vice President for Marketing at Philip Morris,

testified in this case that while he was the head of Philip Morris's marketing department and ultimately responsible for ensuring compliance with the Advertising Code: (1) he could not recall the existence of a formal policy with respect to training new employees about the provisions of the Code; (2) could neither confirm nor deny that new employees received a copy of the Advertising Code; (3) was not aware of an independent entity that had the responsibility of ensuring that Philip Morris and Leo Burnett, Philip Morris's primary advertising agency, complied with the provisions of the Code; (4) was not aware of the provision of the Code that states that advertising shall not represent that cigarette smoking is essential to social prominence, distinction, success or sexual attraction; (5) he had "never thought about . . . or had occasion to think about" how a cigarette advertisement could violate this provision, and the only example he offered of how Philip Morris would violate the provision would be to run "a print ad that would say just that. 'Reach social prominence by smoking a cigarette.'"

1346. Despite the proscription in the Advertising Code that prevents R.J. Reynolds from advertising themes portraying extraordinary athletic activity associated with smoking, R.J. Reynolds continues to advertise the Winston Cup Series, and admits that the Winston Cup drivers have "above average athletic ability." R.J. Reynolds takes the position that the advertisements do not violate the Code because they do not show race car drivers actually engaged in the act of smoking.

1347. At his deposition in this case, Victor D. Lindsley, Senior Group Brand Director of Lorillard, testified that Lorillard has no specific guidelines for determining, as required by the Advertising Code: (1) whether a model in an advertisement appears to be under 25; (2) whether

an advertisement depicts smoking in an "exaggerated manner;" and (3) whether an advertisement depicts an individual participating or just having participated in "a physical activity requiring stamina or athletic conditioning beyond that of normal recreation." These decisions are "judgment calls" made by attorneys.

1348. Claudia Newton, Vice President, Corporate Responsibility and Youth Smoking Prevention at Brown & Williamson, testified in this case that there is no mechanism at Brown & Williamson for punishing any employees for violations of the marketing code.

1349. The fact that Cigarette Company Defendants' senior executives are unaware of the Code's provisions, or have contradictory interpretations of how the Code should be interpreted and applied, and that none could provide an example of implementation of the Code leading to rejection of advertisements or marketing, shows the falsity of Defendants' statements that they continue to obey the Code and that the Code prevents them from targeting youth with their marketing.

1350. Uniformly, when the industry is caught targeting youth or making unwarranted health claims and is faced with legislative action that threatens to restrict cigarette advertising, the Cigarette Company Defendants offer to implement voluntary codes so as to avoid external regulation.

1351. In April 1991, an R.J. Reynolds's executive summary entitled, "Operating in a Restricted Environment" states plainly that R.J. Reynolds was not following the Code, but would consider actually implementing compliance if the manufacturers were threatened by external restrictions on marketing. "At some future point, R.J. Reynolds and the industry may be forced

to consider extreme and radical forms of self-regulation if deemed necessary and effective to avoid extraordinary restrictions or an outright advertising ban. [I]n the most extreme instance, reinstatement of the Code with a Code Administrator. It is acknowledged that in [this] instance, R.J. Reynolds will be forced to change some marketing practices for such self-regulation to be viewed as a credible step."

1352. A Philip Morris memorandum dated July 9, 1994, from Colin L. Goddard, Philip Morris Regional Manager, reveals that Philip Morris's motive for falsely stating that it adheres to an industry-wide Advertising Code is to avoid external, real regulation of marketing, even worldwide: "An industry code will be written [for Pakistan]. . . so that it can be used as both a lobbying lever and an argument against not introducing formal legislation." As stated by Philip Morris: "The immediate implication [of advertising restrictions] for our business is clear: If our consumers have fewer opportunities to enjoy our products, they will use them less frequently and the result will be an adverse impact on our bottom line."

1353. Similarly, a 1998 letter from Ronald Tully, a former Tobacco Documentation Centre ("TDC") employee, regarding a meeting with the Secretary General of the International Tobacco Information Center and Dr. Hiroshi Nakajima, then Secretary General of the World Health Organization ("WHO"), Tully stated: "The purpose of the meeting was to establish whether the WHO could be convinced to tone-down its assault on the industry worldwide, if the industry adopted voluntary global standards on marketing, which would limit the impact of tobacco advertising aimed at children. The discussion at that private meeting led to the suggestion that Nakajima should be offered an 'incentive' by International Tobacco Information

Center, to assist the passage of such a proposal through the WHO system."

(3) Defendants' Internal Documents and Other Evidence Establishes That Defendants Knew That the Above-Referenced Statements Were False When Made

1354. Cigarette Company Defendants knew that their cigarette businesses could not survive absent acquiring youth smokers to replace smokers who have quit or have died. In internal documents, Cigarette Company Defendants expressed the view that stimulating youth smoking initiation and retaining and increasing their share of the youth market was crucial to the success of their businesses.

1355. Notwithstanding Defendants' repeated denials of marketing cigarettes to young people, Cigarette Company Defendants allocated substantial resources researching the habits and preferences of the youth market. From conducting market research on youth smokers, on people under twenty-one, and on people under eighteen, Cigarette Company Defendants knew that the majority of smokers began smoking as youths, develop brand loyalty as youths and that persons who began smoking when they were teenagers were very likely to remain lifetime smokers. From Cigarette Company Defendants' research into young people's vulnerabilities to cigarette marketing, Defendants knew that youths were highly susceptible to advertising and would underestimate the health risks of smoking, and Cigarette Company Defendants knew that youths were price sensitive.

1356. Knowing that advertising and promotion stimulated the demand for cigarettes, the Cigarette Company Defendants used their knowledge of young people's vulnerabilities gained in this research in order to create marketing campaigns (including advertising, promotion, and

couponing) that would and did appeal to youth, in order to foster youth smoking initiation and ensure that young smokers would choose their brands.

1357. Each Cigarette Company Defendant has developed a brand or brands which it hopes will dominate the youth market. In the 1950s, Pall Mall (unfiltered) (at that time owned by American Tobacco, today owned by Brown & Williamson) was the most successful youth brand. It was supplanted by Winston (R.J. Reynolds) in the later 1950s and 1960s, which was in turn supplanted by Marlboro (Philip Morris) in the 1960s. Marlboro has remained dominant in the youth market since that time. However, Marlboro was challenged by Kool in the 1970s, by Newport in the 1970s, and by Camel in the 1990s. Other successful youth brands include: Harley Davidson (Lorillard); Newport Reds (Lorillard); Lucky Strike (Brown & Williamson); Parliament (Philip Morris); and Dave's (Philip Morris).

1358. The Cigarette Company Defendants' representations that their marketing efforts were and are only directed toward shifting current smokers from one brand to another, not toward attracting new smokers or youth, and not toward keeping smokers from quitting, are untrue. The industry's marketing activities brought new smokers into the market and retained existing smokers in the market.

1359. As stated by advertising executive Emerson Foote, the former CEO of McCann-Erickson which has handled millions of dollars in tobacco industry accounts, on April 24, 1986: "The cigarette industry has been artfully maintaining that cigarette advertising has nothing to do with total sales. This is complete and utter nonsense. The industry knows it is nonsense, I am always amused by the suggestion that advertising, a function that has been shown

to increase consumption of virtually every other product, somehow miraculously fails to work for tobacco products."

1360. Despite the Defendants' frequent public assertion that cigarette marketing only affects brand switching and brand loyalty, it has been and continues to be quite effective in influencing young people to smoke. This is shown by the fact that (a) young people who are more familiar with the advertising are more likely to begin smoking; (b) increased expenditures on cigarette marketing campaigns have been associated with increases in the incidence of smoking among adolescents; (c) adolescents who are exposed to more cigarette advertising are more likely to begin smoking; and (d) the brands that are most popular with young people are the ones where ads are designed to appeal to their needs and the most money has been spent on advertising and promotional activities.

1361. Recent studies, performed by reputable scientists and published in reputable journals and other fora, confirm that smoking initiation is caused by Cigarette Company Defendants' targeted marketing activities. As an example, one such study measured progression to smoking in 1996 among young persons who reported being confirmed "never smokers" in 1993 (ages 12-17), but who had a favorite cigarette advertisement, or who owned or were willing to own a cigarette brand promotion item, and concluded that 34% of all experimentation with cigarettes in California between 1993 and 1996 (ages 15-20) was attributable to tobacco marketing activities. Similar research using Massachusetts surveys, conducted in 1997-98 and published in 2000, replicated this result, finding that, among persons who reported smoking less than one cigarette in their lifetime in 1993 (ages 12-15), but who had a favorite cigarette

advertisement or who owned a cigarette brand promotion item, 46% progressed to established smoking (ages 16-19).

1362. As another example, a recent study published on February 18, 1998, and produced from the files of Philip Morris, found that R.J. Reynolds's advertising is effective with children. This study found that receptivity to tobacco advertising and promotional activities actually precedes the first steps in the smoking uptake process, and estimated that 34% of all experimentation in California between 1993 and 1996 can be attributed to tobacco promotional activities. Nationally, this would be over 700,000 adolescents each year.

1363. Cigarette Company Defendants intentionally exploit adolescents' vulnerability to imagery by creating advertising that utilizes the themes of independence, liberation, attractiveness, adventurousness, sophistication, glamour, athleticism, social inclusion, sexual attractiveness, thinness, popularity, rebelliousness, and being "cool." Cigarette Company Defendants place this advertising in magazines, on billboards, at Point-of-Sale (or "POS," meaning marketing materials placed in retail locations such as convenience stores), and in other venues that historically and currently reach millions of teens.

1364. The types of visual imagery used in cigarette marketing, including advertising, are especially appealing to young people. As an executive from Griffin-Bacal, one of the largest advertising agencies in New York, explained in a supplement to Advertising Age published February 10, 1992, "Pictures sell. Visuals count . . . even those visuals that seemingly have nothing to do with the product sale [locations, sets, props, wardrobe, colors, numbers, sexes and ages of people in the ads] . . . Kids want to be like each other. Group acceptance, and living the

life of the gang, is critical Similarly, kids define themselves by the product choices they make and share. Be sure your advertising makes the "world" accessible and "invites" the viewer to join."

1365. Not only do Cigarette Company Defendants choose marketing techniques that are particularly effective with children and adolescents, but they, currently and historically, place their marketing where it is most likely to be viewed by young people. They choose to place their advertisements in media that reach millions of young people: on radio and television, on billboards, in magazines, and currently at retail.

1366. As found in a 1992 study, published in the American Journal of Public Health, vast sums are spent on advertising and promotion because advertising that is repeated frequently and in as many different media as possible is most likely to ensure that its message is received by the maximum number of customers. A copy of this study was produced from the files of R.J. Reynolds.

1367. Between 1952 and 1962, the leading six cigarette manufacturers spent approximately \$1.2 billion for television, newspaper, and general magazine advertising. Their total expenditures for all media in this time period may have been as high as \$2 billion. Between 1963 and 1970, they spent over \$1.5 billion on TV, and over \$180 million on radio. With television alone, during a single evening in this time period, it was estimated that cigarette advertising reached 46% of 13 to 17 year olds, 38% of the United States population 18 years old and over, and 26% of the population ages 2 to 12.

1368. The broadcast ban ended cigarette broadcasting at midnight on January 1, 1971.

On January 1, 1971 alone, Cigarette Company Defendants spent over \$2 million, three times as much as spent on average day in 1970.

1369. Following the broadcast ban which removed their advertisements from television, Cigarette Company Defendants turned to billboard advertising, newspapers, and magazines as a means to reach millions of young people. Spending on newspapers and magazines increased almost threefold after the ban, from over \$64 million in 1970 to nearly \$160 million in 1970, and spending on outdoor advertising (mostly billboards) increased five-fold from under \$12 million in 1970 to over \$60 million in 1971.

1370. Despite Cullman's testimony, cited above, in the hearings leading up to the 1971 broadcast ban that the industry would submit to the ban in order to rectify the over-exposure of children to cigarette advertising on television and radio, and his promise that advertising would be placed in "newspapers and magazines" because "an affirmative act is required by the reader to see and comprehend such advertising," Cigarette Company Defendants instead undertook a massive billboard campaign which indiscriminately exposed children to cigarette advertising. By 1979, almost half the billboards across the land displayed cigarette advertisements.

1371. As James J. Morgan, a Marlboro Brand Manager in the 1960s and 1970s and later the President of Philip Morris, testified on April 22, 1998:

Television had huge reach. Television reached 10, 12, 14 million people at a time, and we were losing that. And so I and a couple of associates came up with the idea that outdoor [billboards] could replace television as a reach medium, and that you could in fact reach large numbers of people with outdoor. But we had not done a lot of outdoor. . . . We found in Opelousas, Louisiana, a printer who could print on paper big enough that you could get what looked like a printed ad in a magazine on huge paper [W]ell before the rest of

the industry caught up and [the rest of the industry] was still putting up stuff that was hand painted . . . [in] the early 70s, Marlboro outdoor started looking like Marlboro magazines, had the same high quality, and it gave you the flexibility to basically run the same things on outdoor that you ran in magazines. That not only built brand equity, but it added to the consistency, because people would see on the highways . . . what they saw in magazines. So the whole story of the broadcast ban is not the story of the broadcast ban, it is the story of the creation of the Marlboro outdoor effort, which has been recognized up and down the line as one of the best outdoor programs in the history of the outdoor industry in the United States.

1372. Billboard advertising had an advantage over television and radio: it did not result in the invocation of the Federal Communication Commission's Fairness Doctrine which had required equal time for public health, anti-smoking messages.

1373. Billboards were particularly effective in reaching youth. For example, one study conducted on children age 8-18 for the magazine Advertising Age, found that 46% of children 8 to 13 years old said they most often saw cigarette advertising on billboards, and that 34% of children age 14 to 18 years old cited billboards as the predominant advertising medium for tobacco products. A copy of this study was produced from the files of R.J. Reynolds.

1374. Cigarette Company Defendants circumvented the broadcast ban by sponsoring public entertainment events that enjoyed prominent television and/or radio coverage during which cigarette brand names and images were featured, including Marlboro, Kool and Winston auto racing teams; Virginia Slims tennis; Benson & Hedges blues festivals; and Kool jazz festivals. For example, R.J. Reynolds began its sponsorship of Winston Cup Racing in the spring of 1971, directly following the broadcast ban.

1375. Cigarette Company Defendants strategically place tobacco advertisements and

promotions to reach young people. As a 1995 study of tobacco advertisements and promotions in California found, there were a significantly higher average number of tobacco ads and promotions for stores within 1,000 feet of a school than for stores not near schools, a significantly higher average number of exterior tobacco ads for stores within 1,000 feet of a school than for stores not near schools, and a significantly higher average number of tobacco ads for stores in which tobacco ads are found next to candy than for stores in which tobacco ads are not found next to candy.

1376. Open discussion of the youth market and use of words such as "starters," "beginners," "teenagers," or explicit references to smokers aged even as young as 8, was frequent in Cigarette Company Defendants' early research and marketing documents. In the 1970s and 1980s, due to external social pressure and litigation concerns, Cigarette Company Defendants became more cautious about using such terms in their internal documents. As a result, marketing documents were, and continue to be today, systematically expunged of terminology that explicitly referred to young smokers. Indeed, the Cigarette Company Defendants have been advised by their legal counsel to stop making explicit references to young people. Instead, Cigarette Company Defendants have sterilized their documents by using euphemisms such as "FUBYA" (standing for First Usual Brand Young Adult), "YAS" (Young Adult Smoker), "YAMS" (Young Adult Male Smoker), and "YAFS" (Young Adult Female Smoker); ASU 30 (adult smoker under thirty); ASU 25 (adult smoker under twenty-five); MASU 30 or MASU 25 (male adult smoker under thirty/under twenty-five); and FASU 30 or FASU 25 (female adult smoker under thirty/under twenty-five). This change in terminology was used to ensure that,

should any marketing documents become public, the public would interpret Cigarette Company Defendants' marketing to be directed only at adults, when, in fact, their marketing practices were still aimed at youth. The following documents demonstrate the change in terminology from explicit to euphemistic.

1377. On January 25, 1975, Robert A. Pittman, Senior Vice President of Marketing at Brown & Williamson, wrote to Martin Broughton, Chairman of BATCo; John Anders of American Tobacco; J.W. Groome; biostatistician Peter N. Lee; Donald S. Johnston, President and Chief Executive Officer of American Tobacco; J.K. Madsen; and Corny S. Muije, Manager of Market Research, requesting that they cease using terms such as "young smokers," "young market," and "youth market." Pittman wrote: "In the future when describing the low-age end of the cigarette business please use the term 'young adult smoker' or 'young adult smoking market.' Please advise all members of your department that these terms should be used in all written materials in the future."

1378. On September 11, 1980, Lawrence W. Hall, Jr., Director of Marketing Development at R.J. Reynolds, wrote in a memorandum stamped CONFIDENTIAL to Ernest J. Fakelman, Vice President for Business Information and Analysis at R.J. Reynolds; D.G. Fought; Ellen N. Monahan, R.J. Reynolds Marketing Development Department; Jerry R. Moore, R.J. Reynolds Marketing Development Department; Greg Novak; and Herbert E. Osmon, Staff Vice President for External Affairs at R.J. Reynolds, copied to Gerald H. Long, R.J. Reynolds Executive Vice President, and blind copied to Nicholas W. Glover, Vice President of Brand Marketing at R.J. Reynolds; K. Kersen; C.R. Hill; and File: "Young Adult Smokers –

Terminology[:] As you all know, the objectives of R.J. Reynolds's marketing activities are to convince existing smokers to select our brands rather than competition's [sic]. More to the point, it is not our business to motivate people to start smoking, particularly minors. . . . Given this policy, it is important that we do not do anything that would leave the false impression that our real intentions are otherwise. The risk area here is in the references we make in our written communications regarding younger adult smoker market. [PRIVILEGED MATERIAL REDACTED] As an additional thought, I would suggest that we all begin using this terminology in our oral communication, both formal and informal. By doing so, we'll develop a good habit that will reflect itself in our written communications. Please discuss this with your people and assure that they understand this new terminology, the rationale behind it, and that they put it into practice immediately."

1379. On September 12, 1980, Ellen N. Monahan, R.J. Reynolds Marketing Development Department, wrote to R.F. Whittington, R.H. Dorman, N. Vokl, R.J. Harden, J.A. Belott, A.P. Philyaw and G.S. Fry, attaching the Hall memorandum, and stated, "Larry has asked that we adopt a strict terminology of referring to 18-34 year olds as younger adult smokers. This terminology is to ensure that our marketing efforts are strictly interpreted to be aimed at the appropriate target group. Would you please take steps to carry out this direction. For example, in proofing work, please be cognizant of Larry's request and make any appropriate changes. In drafting reports, please avoid short-cuts which may be misinterpreted by your secretary such that the inappropriate term is typed. Once we get into the habit, I'm sure it will become natural; but until then, let's be sensitive to the issue and give it our full attention."

1380. In January 1980, R.J. Reynolds's Legal Orientation Manual, signed by Tom Rucker, Associate Counsel, stated, "All written material, whether internal or external, confidential or nonconfidential, should be drafted as if it might be printed the next day on the front page of a nationally known newspaper. We would also suggest that much of your business can be communicated orally."

1381. On September 12, 1980, R.J. Reynolds Executive Vice President Gerald H. Long wrote to R.J. Reynolds marketing employees that "I believe that we should state the age of smokers as beginning at 18 years of age for legal purposes and certainly not go below the 18 age bracket. This should be self-explanatory.""

1382. In a document dated September 27, 1981, an R.J. Reynolds in-house counsel provided written comments in response to a Washington Post newspaper column dated September 18, 1981, which discussed an internal Brown & Williamson marketing plan which included explicit comments about smokers' perception of cigarette smoking as dangerous to their health. The handwritten comments indicate that "this article is a good example of why Law does, and should continue to, review our annual brand marketing plans. The 1975 Winston (I believe) plan, contains statements almost as incriminating against our smokers. Fortunately, later plans have been 'sterilized' through our review." The comments point to specific "stmts [sic] like this I try to expunge" from marketing plans.

1383. An R.J. Reynolds Law Department Draft Marketing Assistant Training Manual dated May 14, 1986 stated: "We use [the term "young adult smokers"] to refer to smokers who are at the lower end of the adult spectrum, i.e. 18 and above. To avoid any misconception about

our intention to reach only adult smokers, we use the phrase 'younger adult smoker', and never 'youth', 'kids', 'young people', etc."

1384. A Leo Burnett U.S.A. report dated September 22, 1989, entitled "Young Adult Smoker Target: An In-Depth Look," prepared for Philip Morris, described the "young adult smoker" as a "moving target in transition from adolescence to young adulthood." These "young adult smokers" are described as "now key to PM [Philip Morris] target." At his May 31, 2002 deposition in this case, Michael Mahan testified he assumed, based upon the terminology "young adult smokers," that this document only meant eighteen to twenty-four year olds, but admitted that "adolescents" are thirteen, fifteen, sixteen, and seventeen year-olds.

1385. An internal 1990 Brown & Williamson document with unknown authorship entitled "Resolve Brand Marketing Strategies" used the terms "starters," "switchers," "young smokers," and "young adults" interchangeably, showing B&W's understanding that a "young adult" is in fact equivalent to an adolescent "starter."

1386. At her April 16, 2002 deposition in this case, Shari Teitelbaum, Director of Marketing and Sales Decision Support for Philip Morris, testified that she did not include explicit references to respondents who were under-twenty-one and non-smokers in a October 18, 1993 marketing survey report, and chose instead to call these respondents "others," due to concerns of the Philip Morris legal department.

1387. A document entitled "Document Creation Outline" dated March 11, 1996, stated: "Purpose: To Make all Employees Aware of the Need for Clarity in their Documents." The document cautioned, "These days, little need to remind that documents end up on the front page

of papers, on the internet, on television, as well as in lawsuits, congressional hearings, government investigations." It provided examples of how to compose notes, letters, or emails so as to avoid having to "explain later (to your supervisor, the legal dep't, or a lawyer on the other side)" and suggested "give thought to whether communication is necessary." This document was produced in this case from the files of Paula Desel, Philip Morris in-house counsel.

1388. Internal documents, correspondence and other records of the Cigarette Company Defendants set forth below for each Cigarette Company Defendant in chronological order establish that the Cigarette Company Defendants knew that the statements referenced above in Sections E.1 and 2 were false, deceptive and misleading when made.

(a) Internal Documents and Other Evidence Establish That Philip Morris Knew That Its Above-Referenced Statements About Youth Marketing Were False When Made

1389. In August 1953, "A Study of People's Cigarette Smoking Habits and Attitudes," conducted by Elmo Roper for Philip Morris studied a "cross section of men and women 15 years of age and over" regarding smoking habits. Questions included: "How old were you when you started smoking?," and "What was your first regular brand?" The document indicated that Philip Morris had "very great strength among young people -- particularly under 20."

1390. An October 7, 1953 letter from George Weissman, Vice President of Philip Morris, discussed the August 1953 Roper report, and stated that "industry figures indicate that 47% of the population, 15 years and older, smokes cigarettes" and that "we have our greatest strength in the 15-24 age group." Weissman stated: "An interesting aspect of the market is that in the age grouping, Lucky Strike is twice as popular among the 15-17 year olds as the next leading

brand, and therefore, has the potential basis to reverse its present trend in a few years.

Encouragingly enough, we have our greatest strength in the 15-24 age group, as against Camel and Chesterfield, which are proportionally stronger among older age groups."

1391. A September 18, 1956 Philip Morris inter-office memo "re: College Survey" from Weissman to Dr. R.N. DuPuis, Philip Morris Scientific Research Director, demonstrates that Philip Morris knew as early as 1956 that the majority of smokers start prior to the age of 18. Regarding a 1956 survey conducted by Roper for Philip Morris, Weissman wrote: "The survey indicates a good number of the students started smoking prior to college, 36% started by age 16 and 81% by age 17 or 18. . . . This of course, raises the policy consideration of where to begin promotional efforts." The memorandum further stated that the survey captured "an important segment of the college market that in many cases sets styles or predicts in advance trends of the college, youth and, in many instances, the general markets."

1392. A 1957 Philip Morris document entitled "RESEARCH NEEDS ON LOW-YIELD CIGARETTES: BEHAVIORAL STUDY SECTION" written by Ellen Gritz discussed smoking initiation. The document posed the following questions to be answered:

1. Will adolescents increase initiation rates as more low-yield cigarettes enter the market and as they become more popular among adults? At the present time, we know that adolescents smoke traditional high-yield cigarettes, such as Marlboro, although teenage girls are slightly ahead of teenage boys in the use of lower tar brands. The issue is both pharmacological and social. a) Adolescents initiate smoking because of social factors – low-yield cigarettes may make it easier to start and thus encourage more 'experimenters' to continue to use until they graduate to the stronger brands. b) As low-yield brands become more popular among adults (given that they may) modeling behavior may lead adolescents to smoke them as well. Furthermore,

such brands may become considered 'safer,' thus leading teenagers to pay less attention to public health campaigns designed to encourage. 2. Will age initiation of smoking be affected (lowered) by having a larger proportion of weaker cigarettes in the market?

1393. In a May 28, 1959 document, W.H. Danker, a Philip Morris employee, wrote a memorandum entitled "Roper Attitude Study of January 1959" to R.N. DuPuis, Philip Morris Vice President of Research and Development and Member of the Board. Danker summarized the study's findings: "[W]e also should win more young non-smokers with mildness."

1394. In 1961, Philip Morris caused to be placed in newspapers and magazines a nationwide Marlboro advertising campaign captioned "Marlboro Country," to be placed in radio and television broadcasts and newspapers.

1395. A December 27, 1961 letter from Shoi Dickenson, Survey Director of Opinion Research Corporation, to William L. Dunn, Senior Scientist at Philip Morris, offered a new research service studying the teenage market: "Any company interested in obtaining information on teenagers' use of their products, or teenagers' attitudes toward their products, can participate. . . since teenagers currently constitute a portion of the cigarette market and are constantly entering that market, we think this research service will be of interest to you."

1396. A letter dated February 8, 1962 from Dickinson to Dunn indicated that Philip Morris was interested in teenager information. Dickinson wrote: "This is just to keep you up to date on our follow-up of showing our Teen study presentation to Jet Lincoln [Philip Morris Vice President]. Joe Bevis [Opinion Research Corporation] called on Mr. Lincoln yesterday and we felt we received a good hearing for the Teen study."

1397. Beginning March 5, 1962, and running through 1964, various "On Campus with

Max Shulman" one-page Marlboro advertisements which were intended to appeal to college students were placed in media.

1398. A document entitled "Teen-Age Cigarette Purchasing and Smoking Habits in the U.S.A. 1963," produced from Philip Morris's files, discussed a nationwide study of teenagers aged 13 to 18 years old which examined the extent of teenage smoking, the volume of cigarettes smoked by teenagers, where teenagers obtained cigarettes, the extent to which minors purchased cigarettes from vending machines, and possible factors motivating teenagers to smoke. Although this was purportedly an independent study, it was conducted at the request of Lewis J. Risman of the National Automatic Merchandising Association, who corresponded at about this time with Philip Morris executives regarding youth research.

1399. A September 28, 1965 letter from Philip Morris to the Honorable Robert B. Meyner, Administrator of the Cigarette Advertising Code, stated: "Marlboro is not the leading seller in the youth market. In the youngest age bracket (17-24 year olds), the 1963 HTI [Home Testing Institute] study shows Winston to be far and away the number one brand, Pall Mall as the second largest seller and Marlboro third. The more recent study, by Elmo Roper in 1965, shows that Marlboro now ranks fourth behind Winston, Pall Mall and Salem."

1400. A March 1, 1967 report entitled "Survey of Cigarette Smoking Behavior and Attitudes," performed for Philip Morris by Eastman Chemical Products, Inc., included information of the ages at which individuals begin smoking and detailed the steep slope of the curve of beginning smokers during the high school years, at ages 15-18. The report stated: "One Survey shows that about two-thirds of all persons who ever smoke start before they finish high

school." It further stated: "About 40 million people in the United States will reach 16 in the next 10 years. The size of the cigarette market in the future depends on the extent to which these youths begin smoking."

1401. In 1968, Philip Morris began a nationwide Virginia Slims newspaper and magazine advertising campaign. Among several treatments, advertisements often depicted slim, independent, well-dressed attractive women smoking cigarettes.

1402. The "1969 Survey of Cigarette Smoking Behavior and Attitudes" performed by Eastman Chemical Products for Philip Morris contained detailed analysis of beginning smokers, including interviews with 12-14 year olds. This report stated that 16-20 is a critical age group for smoking initiation, explaining that "at age 14, 60% of the boys who were to become smokers had smoked their cigarette." The document includes information on why these individuals smoked their first cigarette and whether they liked their first cigarette.

1403. In a May 23, 1969 memorandum, Myron E. Johnston, Senior Economist for Research and Development at Philip Morris, wrote to Robert S. Seligman, Vice President for Tobacco Science and Research at Philip Morris, regarding Marlboro market penetration by age and sex. Attached to the memorandum was a chart which includes information on fifteen-year-old smokers.

1404. Helmut Wakeham, Vice President for Corporate Research and Development at Philip Morris, made a November 26, 1969 presentation to the Philip Morris Board of Directors entitled "Smoker Psychology Research." A bound report contained the typed presentation and accompanying slides. The report stated that although "the primary motivation for smoking is to

obtain the pharmacological affects of nicotine," it is psycho-social motivations and not nicotine that are responsible for smoking initiation. "We are not suggesting that the affect of nicotine is responsible for the initiation of the habit. To the contrary, the first cigarette is noxious experience to the novice. To account for the fact that the beginning smoker will tolerate the unpleasantness we must invoke a psycho-social motive. Smoking a cigarette for the beginner is a symbolic act . . . a symbolic declaration of personal identity." The report further stated: "The 16 to 20 year-old begins smoking for psychosocial reasons. The act of smoking is symbolic; it signifies adulthood, he smokes to enhance his image in the eyes of his peers." The document concluded: "As the force from the psycho-social symbolism subsides, the pharmacological affect takes over to sustain the habit, augmented by the secondary gratifications."

1405. A May 8, 1970 report entitled "Project 1600 Consumer Psychology" described the study of the town of Greenfield, Ohio, a community that quit smoking in conjunction with local filming of the motion picture "Cold Turkey." According to the report, Philip Morris distributed questionnaires to approximately 95% of the households in Greenfield. "We estimate that 98% of the households and 99% of those over 14 years old received questionnaires."

1406. In a June 12, 1970 memorandum, "Suggestions for Research to Answer Questions Raised on Philip Morris Benchmark Study," Steve Fountaine, a Philip Morris employee, discussed the discrepancy between the reported results on the market share survey and Marlboro's actual sales share "due to people our survey misses of necessity (on campus college students, those in the military and those under 18 years of age." This memorandum set forth a detailed proposal for research into the smoking habits of young people aged fourteen to

seventeen: "To get a reading on the smoker percentage and Marlboro share among teenagers not covered in the Benchmark study we recommend interviewing young people at summer recreation centers (at beaches public pools, lakes, etc.). . . . In our opinion, this suggested approach will provide a good reading on the Marlboro share among very young smokers, as well as adding information on college student's smoking habits."

1407. The July 15, 1970 Philip Morris "R&D Strategic Plan: 1971-1975" submitted by Helmut Wakeham, Vice President for Corporate Research and Development at Philip Morris, stated: "Without an effective counter-effort by cigaret makers, there is likely to be an erosion of the social acceptability of smoking. Whereas smoking has traditionally been viewed by adolescents and young adults as sophisticated adult behavior to be emulated, it is in danger of being regarded generally as undesirable behavior to be avoided."

1408. The September 24, 1971 "R&D Strategic Plan: 1972-1976" prepared by Harry Daniel, Planning Coordinator at Philip Morris, stated that "whereas smoking has traditionally been viewed by adolescents and young adults as sophisticated adult behavior to be emulated, the growing youth market may be in danger due to changing value systems and attitudes."

1409. In an August 17, 1970 memorandum from William L. Dunn, Senior Scientist at Philip Morris, to Helmut Wakeham, Vice President for Research and Development at Philip Morris, titled "Considerations Pertinent to the Proposed FTC Requirement of Published Numbers," Dunn argued that Philip Morris need not attempt to block FTC regulations requiring disclosure of tar and nicotine levels in all cigarette advertising, because a youth smoking study indicates that youth smoking initiation would not be influenced by such FTC action. Dunn

stated: "We have . . . evidence that the will to smoke is remarkably impervious to concerted, dissuasive pressures. (a) Horn's recent survey data of teenagers revealing a higher percentage of smokers among 12-18 year olds in the U.S.A. than ever before recorded."

1410. A document entitled "Industry Trends," apparently written in 1972, and included as part of a "Market Planning Guide" intended to show Philip Morris employees how to create long-range planning documents, stated: "Although the total population will increase by 3.4% during the 1973-1978 period, the 15-19 year old age group from which many new smokers are gained, will only increase by 1.9%, while undergoing actual decreases in 1977 and 1978." The document included smoking incidence figures for 12-17 year olds, as well as population numbers but not smoking incidence for "under 15 years."

1411. A June 27, 1972 interoffice memorandum written by R.M. Jones of Philip Morris to Raymond Fagan, Principal Scientist at Philip Morris, entitled "Fifteen Year Cigarette Smoking Trends: 1955-1970" analyzed the percentage of smokers and non-smokers by sex, beginning at age 17, and stated that there was a decrease in the number of current smokers and an increase in the number of former smokers.

1412. A September 21, 1972 memorandum written by Joseph H. Sherrill, Director of Marketing Research at R.J. Reynolds, to William S. Smith, Executive Vice President of R.J. Reynolds, entitled "Company Shares Broken by Age Groups" stated "Philip Morris [is] the fastest growing company . . . among smokers under 35" and "that in the last six years Marlboro King has almost doubled its share with most all of its growth coming from young adults."

1413. A May 18, 1973 memorandum entitled "Incidence of Smoking Cigarettes," sent

by Neil Holbert, Philip Morris Marketing Research Department, to numerous Philip Morris employees, discussed findings from a survey conducted by the Opinion Research Corporation of smoking incidence among 12-17 year olds and 18 and over. Holbert stated that the survey found that 13% of the 452 12-17 year olds polled smoked at least a pack a week.

1414. In July 1974, "A Study of Smoking Habits Among Young Smokers," prepared by the Roper Organization for Philip Morris, found that "Marlboro is the starting brand for young whites, and Kool is the starting brand for young blacks." The study was conducted on smokers age twenty-four and younger; no age floor was assigned. The study questionnaire asked when the respondents started smoking and included a category for fourteen and under. The study's findings included: "Marlboro N/M [non-menthol] appears to be attracting fewer new smokers than some of the other brands. . . [and] appears to have become static" and "Marlboro is the starting brand for young whites." The report stated: "We are not sure that anything can be done to halt a major exodus if one gets going among the young. This group follows the crowd, and we don't pretend to know what gets them going for one thing or another. Certainly [Philip] Morris should continue efforts for Marlboro in the youth market."

1415. A July 25, 1974 Philip Morris Marketing Research Department memorandum entitled "Highlights of Special Roper Study on Young Smokers," discussed the implications of "new trends in the marketplace, particularly among young smokers." This Roper study, commissioned by Philip Morris, detailed Marlboro's slowing growth in share of market. The memorandum stated: "[T]his problem is especially clear among the most important segment of the Marlboro franchise, smokers aged 18 to 24 and that, while this softness was notable for

Marlboro, menthols, and especially Kool, were showing growth among these young smokers."

1416. A Philip Morris memorandum entitled "Behavioral Research" dated August 2, 1974 proposed a study of hyperkinesis in children: "We don't propose giving cigarettes to first graders, of course, but we think that it is quite possible that as such children reach adolescence at least some of them will find that smoking produces – for them – the advantage of improving their ability to concentrate."

1417. According to the July 24, 1995 Congressional Record, the Philip Morris study of hyperkinesis in children actually began in June of 1974 "to determine if [the scientists] will 'discover the advantage of self-stimulation via nicotine' and 'become cigarette smokers in their teenage years' In July 1975, the researchers report the status of their investigation of the 'hyperkinetic child as a perspective smoker' . . . and . . . tell the Philip Morris vice president: 'We hypothesize that the characteristics of smokers and hyperkinetic children so closely resemble each other that in the past hyperkinetics were almost sure to become smokers'. . . . Finally, the study of hyperkinetic children stops in March 1978, due to objections from school systems and physicians."

1418. A Philip Morris March 3, 1975 internal document entitled "Economic Forecast 1975-1980" written by Myron E. Johnston, Senior Economist for Research and Development, stated that "the most recent surveys have shown an increase in the proportion of teenagers (particularly girls) who are beginning to smoke cigarettes. Thus, even though there will be a decline in the absolute number of teenagers from 1975-to-1980, the number of teenage smokers will remain constant. From 1969-to-1974, by contrast, the number of teenage smokers increased

at an average rate of 2.2%. . . . During the last ten years Marlboro has benefitted from the rapid increase in the number of people 15 to 19 years old, the ages at which most smokers begin smoking." Johnston also predicted that, because of the declining number of 15-19 year olds, "Marlboro will be deprived of one source of its growth and, increasingly, will have to rely for growth more on switchers from other brands and on maintaining the brand loyalty of Marlboro smokers. Because of this decline in the number of 15-19 year olds, Marlboro sales will increase at a decreasing rate."

1419. Johnston sent an interoffice memorandum dated May 21, 1975, to Robert B. Seligman, Director of Commercial Development, Tobacco Products at Philip Morris, with the subject "The Decline in the Rate of Growth of Marlboro Red." Johnston discussed four factors contributing to the Marlboro Red growth slowdown: fewer 15 to 19 year olds, the recession, increasing cigarette prices, and the "changing brand preferences of younger smokers." The memorandum stated: "It has been well established . . . [by studies] that Marlboro has for many years had its highest market penetration among younger smokers. Most of these studies have been restricted to 18 and over, but my own data, which includes younger teenagers, shows even higher Marlboro market penetration among 15-17 year olds."

1420. In a November 10, 1975 document Richard L. Stirlen, Director and Brand Manager for Philip Morris, discussed various sites, including ski resorts and beaches, to conduct the Marlboro Spring Vacation Program aimed at young people on Spring Break from colleges and universities.

1421. Philip Morris inter-office correspondence dated February 13, 1976 entitled

"Marlboro Resort Program - Ft. Lauderdale, Florida March - April" discussed a sampling program that targeted young people on Spring Break from colleges and universities.

1422. An April 8, 1976 Philip Morris inter-office memorandum entitled "Teenage Smoking" reported on the "upsurge" of smoking among teenage girls, and hypothesized that the increase in teenage girls smoking may be connected to the teenage boys' smoking habits and the fact that "teenage boys typically date girls who are their own age or a year or two younger." This document included information on males age twelve to seventeen and females age ten to fifteen, and observed that the thirteen year old age group "shows the most dramatic increase proportion of smokers."

1423. A May 1976 study prepared for Philip Morris by the Roper Organization entitled "A Study of Smokers' Habits and Attitudes With Special Emphasis on Low Tar Cigarette" stated that "[a]s usual, in the studies we conduct for Philip Morris, we undermeasure Marlboro's share since we do not interview people under the age of 18, and Marlboro is strong with teen-age smokers. Marlboro continues to be a young smoker's brand, with one-quarter of those 18 to twenty-one reporting they smoke Marlboro Red most often."

1424. A June 2, 1976 Philip Morris memorandum by Johnston entitled "Why People Start To Smoke" stated: "most smokers appear to have begun smoking between the ages of 10 and 18." The memorandum identified the "factors involved in the initiation of smoking," explaining: "In general, the studies suggest that youngsters beginning to smoke is related to: a) curiosity about smoking; b) conformity pressures among adolescents; c) need for status among peers, including self-perceived failure to achieve peer-group status of satisfaction; d) the need for

self-assurance; and e) striving for adult status." Of high school students, the document stated:

"The smoking pattern is established relatively early. Before 12 years of age less than 5% of boys and 1% of girls smoke, but soon thereafter a steady increase begins. In the 12th grade, from 40-to-55% of children are smokers, and by the age of 25 years about 60% of men and 36% of women have acquired the habit." Johnston indicated that he consulted both external, independent research and internal Philip Morris research on youth smoking: "Information on the motivation that leads to a continuation of smoking comes from a special study done for Philip Morris (brand, 1971)."

1425. Neil Holbert, an employee of the Philip Morris Marketing Research Department, sent an interoffice memorandum dated October 13, 1976 about "Teen-Age Smoking" to Jon N. Zoler, Director of Marketing Research for Philip Morris. This memorandum stated that "we have an operational decision to make on what age to use as a low-end in working out incidence, consumption, and brand usage." Holbert stated that the "data suggest that we use Age 15 as a base."

1426. In a memorandum dated June 1977, an employee of William A. Robinson, Inc., a marketing services agency, submitted a list of potential Youth Resort Program locations to Philip Morris. All venues mentioned attract large Spring Break crowds of college and university students.

1427. A June 13, 1977 memorandum written by Frank Ryan, Senior Associate Scientist for Philip Morris, entitled "PM-USA Behavioral Research Annual Report" stated: "We have been seeking a data source to provide us with a large sample of hyperactives who, at the time of their

diagnosis, were too young to be smokers. We would then track these children until they reached smoking age, and compare the proportion among a control group Although school system records would seem best suited for such research . . . restrictions on access to records, on the length of time records can be kept, on the type of records which can be kept, and on the use of children in research without the informed consent of their parents will keep us out of the school systems until the rules are rewritten."

1428. A October 11, 1977 letter from Jetson E. Lincoln, Vice President of Planning at Philip Morris, to Dr. Carl D. Seltzer, a CTR Special Projects researcher, stated: "Alex tells me you are planning a study of young people to elicit the difference between those who become smokers and those who do not become smokers. This is excellent news."

1429. A November 10, 1977 memorandum from Holbert to Zoler entitled "Incidence of Smoking" stated: "We are often asked about incidence of smoking." The memorandum described an updating of a "compilation" of "studies and releases" discussing "Teen-age incidence data."

1430. In a 1978 document entitled "The Assets," Philip Morris reported that "the percentage of smokers in the 17-24 year old age group is up, and the amount smoked per day per young smoker is also up."

1431. In a July 1978 document entitled "Estimated Number of US Smokers," Philip Morris tracked smoking incidence among the population, starting at age twelve.

1432. A March 29, 1979 memorandum entitled "Marlboro" stated: "Marlboro dominates in the 17 and younger age category, capturing over 50% of this market" and itemized various

special promotions, including summer sampling and the Marlboro Cup.

1433. An October 18, 1979 unsigned confirmation memorialized the agreement between Philip Morris Europe S.A. and Pinewood Studios, to expose the Marlboro brand name in the film "Superman II" in return for 20,000 pounds (approximately \$42,500).

1434. An October 24, 1980 internal Philip Morris memorandum from Holbert to Jerry Choyke regarding "Number of Smokers" discussed smoking incidence for the 1960s, 1970s, and projected for 1981, and included information from a Roper study conducted by the Tobacco Institute which surveyed seventeen year olds.

1435. A March 31, 1981 report conducted by the Philip Morris Research Center entitled "Young Smokers Prevalence, Trends, Implications, and Related Demographic Trends" stated that "Today's teenager is tomorrow's potential regular customer, and the overwhelming majority of smokers first begin to smoke while still in their teens . . . [I]t is during the teenage years that the initial brand choice is made." The report indicated Philip Morris's concern over demographic and social trends creating a downturn in teenage smoking rate: "because of our high share of the market among the youngest smokers, Philip Morris will suffer more than other companies from the decline in the number of teenage smokers."

1436. In a document dated May 7, 1981, Johnston of Philip Morris stated that 33.2%, 32.6% and 32.2% of people 17 and over were current regular smokers for the years 1978, 1979, and 1980, respectively.

1437. In interoffice correspondence regarding "Smoking Prevalence by Age, Race, and Sex" dated July 29, 1982, from Johnston to Janet E. Brown, an employee of Philip Morris,

Johnston discussed interview samples from age groups ranging from seventeen and older.

1438. In interoffice correspondence entitled "Cigarette Sales Forecasts, 1982-1990" dated October 18, 1982, from Johnston to Rowe, Johnston stated that 18-24 year olds were "in many ways . . . the age group of greatest significance in any forecast" and noted that "[t]he number of people 18-24 will decline by about 15 percent from 1980-1990."

1439. In interoffice correspondence dated February 18, 1983, from Johnston to Alfred Udow, Consumer Research and Marketing Department at Philip Morris, entitled "Still More on Trends in Cigarette Smoking Prevalence," Johnston discussed "the encouraging upward trend in smoking prevalence among 18-29 year-olds -- encouraging because of the importance of these younger smoker smokers to Philip Morris."

1440. An internal document entitled "Product Testing Short Course," dated January 23, 1984, prepared by Philip Morris's Research and Development Department, explained how Marlboro succeeded by attracting new teen smokers: "Marlboro floundered for 8 years and then hit a responsive chord among the post-war baby-boom teenagers with the theme from the "Magnificent Seven" and an image uncalculatedly right for the wave of teenagers coming of smoking age." Explaining the importance of teenage smoking initiation, the document stated: "Of the two important demographic influences in the last 35 years -- women and teenagers -- one has peaked and the other is working against us. Other demographic groups probably don't hold much promise since they are already smokers."

1441. Metacorp, Inc., a marketing development corporation, prepared a March 1984 document entitled "1984 Marlboro Spring Resort Field Marketing Opportunities" for Philip

Morris. This document outlines various venues and events occurring during Spring Break, among them the 2nd Annual New Music Showcase, featuring Duran Duran, a band popular with teenagers.

1442. In a March 16, 1984 document discussing smokers' incidence of smoking and their educational attainment, Johnston stated, "Not much can be said of the 17-24 year olds because most of them are still in school."

1443. A March 20, 1984 Philip Morris document entitled "The Cigarette Consumer" stated that "[p]eople begin smoking 1) [because of] peer pressure, 2) to rebel/assert independence, 3) to appear grown up, 4) to experiment," and that "products targeted to younger end of spectrum [are] most viable."

1444. A December 12, 1984 Philip Morris report entitled "Cigarette Market History and Interpretation" prepared by John E. Tindall, Senior Scientist at Philip Morris, traced the history of the cigarette market from 1938 to 1984, and analyzed brand shares and relative performance in terms of the demographics of the smoking population and the turnover in the smoking population. The report explained the rise of Marlboro, Kool, and Newport – "New smokers entering the market were disproportionately attracted to those brands." The report stated: "[I]f the domestic cigarette market is to survive long-term, it must have a constant influx of new smokers. In the past, the psychology of brand choice for new smokers has been an area to which we have had to give little attention since our brands have been among the major beneficiaries of new smokers' brand choices. There are reasons to believe we may not be so fortunate in the future." The report further stated that "Marlboro's growth and, presumably, its position as the

brand of choice among new smokers, coincided with the Marlboro County campaign. That was certainly a remarkable campaign and one that probably did appeal to young people, but not one that marketers would have been likely to have composed to attract young people in the 1960s."

1445. In an August 15, 1985 document entitled "Trends in Smoking Among High School Seniors," Johnston stated that "about half of all people, in all age cohorts, who ever smoked have been smokers at age 18. Thus by studying trends in smoking among 18-year-olds we might gain some insight as to what to expect in the future." Jon. Zoler, Director of Marketing Research at Philip Morris, stated that this study was "the most comprehensive study I've seen on the subject."

1446. A September 18, 1985 Philip Morris inter-office memorandum by Johnston surveyed menthol smokers by race, age, and gender in order to explore a drop in the 18-24 year old menthol smoker market. The memorandum identified menthol as an "entry brand," and asked the question, "Why are the young abandoning menthols?" Johnston stated that women who begin smoking before age 18 were less likely to choose menthol, whereas those who begin smoking after age 17 were more likely to choose menthol.

1447. A document entitled "Impact of Marlboro Sponsorship in CART Racing: Are We on Track?," apparently drafted after 1986, discussed Marlboro car racing promotions. The document stated that 14% of 18-24 year olds were racing fans and that racing was perceived as "masculine, dangerous. . . [because racing] is like grabbing Death by the gonzo and saying 'Ha!'"

1448. Philip Morris sent an advertising contract dated January 14, 1986 to the Los Angeles Dodgers, Inc. Advertising and Novelty Department for the purpose of placing Marlboro

advertising in the 1986 Dodger scorecard and magazine available at Dodger major league baseball games.

1449. An internal Philip Morris document, apparently drafted in 1988 and containing plans for marketing Parliament in 1988 and 1989, stated: "To target the 18-24 males and females, our retail focus will be on pack outlets . . . and will be trial/conversion oriented. This younger age group is more likely to make decisions based on peer pressure. To convey the idea that everyone is smoking Parliament, the brand should have continuous high levels of visibility in as many pack outlets as possible." One question for research was: "Who are the 18-24 year old male and female Parliament smokers? Why do they smoke Parliament (taste, filter, advertising, peer pressure)?"

1450. An August 1987 Philip Morris document stated that Marlboro, Benson and Hedges, and Virginia Slims events, like Marlboro Auto Racing, had been "highly successful in creating brand awareness and generating positive publicity."

1451. In 1988, Roy Anise, Manager in Philip Morris Market Research Department, drafted a February 1, 1988 report which noted that Philip Morris had reviewed the decreasing smoking incidence of high school seniors to determine if that was a cause of declining smoking rates of military personnel. Anise's report cited Myron E. Johnston's 1985 report entitled "Source Trends in Smoking Among High School Seniors" which stated that historically about half of all smokers begin smoking by the age of 18.

1452. Johnston authored a March 17, 1988 memorandum entitled "Smoking Among High School Seniors" in which he stated that "I am ever more confident than before that we can

use the data on high school seniors to predict trends in smoking among young adults."

1453. An April 5, 1988 letter from Elizabeth H. Reiman, Leo Burnett U.S.A., addressed to Nancy Brennan Lund, now Senior Vice President for Marketing at Philip Morris, provided "details regarding the upcoming Camel qualitative study" and stated that "[r]ecent strong Camel performance, especially among the young male target, has resulted in an effort to explain that success and determine the potential threat to Marlboro." The letter indicated that respondents for this study were to be recruited among 18-24 year old smokers.

1454. A September 14, 1988 letter from Leo Burnett-Kyodo Company, Ltd. Advertising to DANJAG SA concerned product placement of Philip Morris's Lark cigarettes in the James Bond movie "Licence to Kill." The letter "confirm[ed] that DANJAG SA will use its best endeavors to have included in the proposed feature film currently entitled 'License Revoked' . . . the exposure of a Lark cigarette . . . and will assign to Leo Burnett - Kyodo the rights to run a Lark media promotion . . . to coincide with the opening of 'License Revoked' in Japan." This agreement called for a "pack of Lark cigarettes to be clearly identified during a scene in which James Bond opens a pack of Lark cigarettes which will contain antennas and detonators which James Bond will use as an action prop (illustration attached). The Lark brand name will be clearly established on screen." The agreement also gave Philip Morris the rights to produce a six months long promotion for the film. Subsequent to a Department of Justice investigation, "License to Kill" (the title of the United States release of "License Revoked") became the first, and likely the only, movie to carry a smoking and health warning at the end of the movie.

1455. A September 26, 1988 inter-office memorandum written by Carolyn Levy, Philip

Morris Assistant Director of Consumer Research, and sent to David Dangoor, Executive Vice President at Philip Morris, outlined issues to research in 1989, among them: "Can we gain a better understanding of young smokers? What are their personality traits, beliefs, values, lifestyles? What are the marketing implications of these findings?"

1456. During the ninety-four-minute long 1989 Marlboro Grand Prix, a nationally televised program with appeal to teenagers, the Marlboro logo was seen or mentioned 5,933 times, and was visible for 49% of the program's air-time.

1457. A "Schedule of Product Placement 1987-1989," apparently drafted in 1989, listed a number of movies in which Philip Morris cigarettes and other products, such as neon cigarette advertising signs, were supplied to movie studios for product placement in films. This list included several movies which were targeted at teenagers, including "Disorderlies," "Robocop," "Tapeheads," "K-9," "Crocodile Dundee," and "Who Framed Roger Rabbit."

1458. On February 24, 1989, John A. Kochevar, Vice President Corporate Affairs at Philip Morris wrote Representative Thomas A. Lukens, detailing the product placement of Philip Morris cigarettes and marketing materials in movies from 1979 to 1989. Kochevar wrote: "During the preceding 10 years, when approached by filmmakers, Philip Morris U.S.A. has occasionally provided free cigarettes and promotional materials such as brand name signs, and in a few instances, apparel promoting the film. On such occasions, the script for the film in question has provided for one or more scenes in which smoking or related products were to be depicted." During that ten year period, Philip Morris "employ[ed] independent film industry consultants to review scripts submitted by movie producers and script writers and to advise us"

and admitted providing signage and cigarettes for at least 170 domestically produced films – fifty-six films in 1987 and 1988 alone – as well as making a \$5,000 contribution to the Sylvester Stallone Fund for Autism.

1459. In a May 18, 1989 letter to Rep. Lukens, Kochevar, admitted that Philip Morris had provided cigarettes and period cigarette advertising signs for "Who Framed Roger Rabbit" in 1988, and had provided cigarettes for "Crocodile Dundee" in 1986.

1460. Philip Morris's 1989 Proposed Budget earmarked \$80,000 to "Understand the Group Dynamics of Smoking Behavior and Brand Choice" including "entry brand choice."

1461. A May 12, 1989 Philip Morris document entitled "Marlboro Brand Review" contained a discussion of Marlboro issues, performance, and strategy: "Major strategic shifts are not recommended for Marlboro. Our plans, in fact, have become even more focused on appealing to the core young adult male user and reinforcing our strong male, full flavor brand image. Further, Marlboro's position against competitive threats will be offensive not defensive." Regarding the threat of Camel, the document stated: "Camel has perhaps the strongest flavor, most male image of any cigarette in the industry. This equity is being effectively leveraged with the bold, young 'smokin' Joe' advertising and promotion effort, an effort which taps directly into the young male headset – have fun, get wild, and be macho. The campaign limitation may be that it can't support the franchise as it ages because the message is so young." To meet Camel's threat, the document discussed a potential new advertising campaign, in addition to the traditional Marlboro ads, which would be "designed to appeal specifically to the young, adult male; ads which are strong in subject and tonality thereby reinforcing our core position."

1462. Leo Burnett U.S.A. prepared a September 22, 1989 report entitled "Young Adult Smoker Target: An In-Depth Look" for Philip Morris which examined the values and goals of the 18-24 year age group who are "now key to PM (Philip Morris) target" and described the "young adult smoker" as a "moving target in transition from adolescence to young adulthood."

1463. In internal Philip Morris correspondence dated October 25, 1989 from Cathy Lieber, Philip Morris Manager of Promotions, to David Dangoor, Executive Vice President at Philip Morris, Lieber wrote: "[W]e are naturally more interested to learn how you plan to target the emerging young adult female smokers rather than the older female smokers."

1464. The Philip Morris, USA R&D Strategic Plan, 1991-1995, written in 1990, stated: "A review of Marlboro demographics is also a review of the 18-25 year old age group. . . [I]n 1989, Marlboro's share of that smoker group was in excess of 60%. The brand's strength since 1977 has been in that age group. . . [T]he continued success of this brand depends on keeping its age profile young. This fact then would say that we do not want Marlboro or the Marlboro image to be old. Its success through the years have been its ability to attract the entry smoker."

1465. An undated Philip Morris presentation entitled "Reasons for Considering Camel as a Serious Competitor," apparently drafted in 1990 or 1991, stated "Camel is becoming younger." The presentation cited market share statistics showing "in the past three years, Camel's share of adult college smokers almost doubled" and named Camel's growth among youth as the key reason Camel should be taken seriously.

1466. A report dated August 7, 1990 entitled "New Brand Opportunities in the Cigarette Industry" was written for Philip Morris by Gibbons, Voyer & Associates, Inc. The report found

that 17-19 year olds comprise 18.9% of smokers. It stated "Marlboro dominates young adult smoker market: initial exposure, peer pressure, meets image wants," and "switching occurs as smokers enter their mid-20's." It recommended that any marketing approach "insure that Philip [Morris] has a brand entry to meet the various wants of young adult smokers: image, product, price."

1467. 1991 Philip Morris document stated that "the top four brands in the industry all have extremely high unaided awareness levels."

1468. Jeanne Bonhomme, Manager of Consumer Research at Philip Morris, wrote a February 6, 1991 memorandum entitled "Marlboro/Camel Consumer Research" which discussed research comparing the advertising and images of Camel and Marlboro among 18-24 year old male Marlboro and Camel smokers. Respondents were asked whether various descriptive statements fit the Marlboro Man and Joe Camel, including whether these characters were "macho," "independent," "rebellious," "cool/hip," and whether they were someone that "I'd be friends with." When asked what the Marlboro slogan "Come to Marlboro Country" means, most respondents responded that it meant to "smoke/try/switch" to Marlboro.

1469. Philip Morris inter-office memorandum dated June 14, 1991 from Natalie Ellis, Senior Manager at Philip Morris, to Jim Raporte, an employee in Trade Marketing at Philip Morris, entitled "Marlboro Focus Groups Topline" discussed Philip Morris's own and its competitors' use of premiums to promote cigarettes. The memorandum discussed how R.J. Reynolds used promotional items with the Camel logo to increase the visibility and market share of Camel. Although the memorandum referred to the targets for Philip Morris premium items as

"young adult men," the description given was equally appropriate for teenagers: "these men's lives revolve around friends, music, cars, and jobs." A description of the perceived benefits of providing premiums to customers was also appropriate for teenagers: "Clearly, the main value of many premiums is to get envious comments from friends. That is why the items need to be 'cool and unique.' You can't impress your friends with something you can easily buy at any store."

1470. During a 1992 presentation to analysts regarding Philip Morris's 1993 plans, Michael Szymanczyk, Senior Vice President of Sales at Philip Morris, stated: "To protect our premium volume we plan to continue focusing our marketing and retail sales efforts on Marlboro. Its younger smoker base and ability to retain its smokers mean that its profit stream has a longer time horizon than any other brand in the industry." Szymanczyk also stated that, "The average age of adults who smoke our brands is seven years younger than the average age of our competitors' smokers."

1471. The "Philip Morris Draft Marketing Plan (1992-1996)," apparently drafted in 1991 or 1992, stated: "To sustain growth during the plan, Marlboro must maintain its strength among young adult smokers."

1472. Philip Morris's 1992 "Worldwide Marlboro Monitor Five Year Trends 1988 - 1992 Philip Morris International Marketing Research Management Overview" stated that there have been no dramatic changes in the levels of starters and quitters.

1473. "The Viability of the Marlboro Man Among the 18-24 Segment," dated March 1992, prepared by Bruce Eckman Inc. for Philip Morris, made recommendations for Marlboro advertising in light of Camel's success with the 18-24 age group. The document recommended

that, "to reduce the effectiveness of the Camel advertising with the 18-24 segment, Marlboro should consider: a) capitalizing on the strength of being the number one brand; make the users feel that they belong to a special group of smokers through point of sale which reinforces being number one; b) increasing the breadth and variety of the Marlboro Man advertising campaign without sacrificing the strength of his integrity[:] 1) show him not only at work, but also at leisure, . . . 2) show him enjoying the benefits of his chosen path, . . . 3) show him in charge...and desirable in magazines where he could be pictured with a woman, . . . 4) consider using a copy line to direct the visuals, [and]...make him more accessible and less removed."

1474. Philip Morris's 1992 Marlboro Brand Review dated April 12, 1992, analyzed Marlboro's past share growth and predicted future patterns. The document stated that, while Marlboro Red King Size and Marlboro Lights King Size had shown steady growth from 1989 to 1992, this growth "has not however compensated for the loss from the Red parent brand" which had declining sales. The document discussed marketing strategies aimed at a key type of Marlboro consumer, the CHIMP (defined as 18-24 year olds).

1475. A document entitled "PM USA Business Update" dated October 8, 1992 stated that Philip Morris "faces two significant negative trends. The growth in discount cigarettes is reducing our premium sales and we are not obtaining our historic share of entry-level adult smokers." In order to "[a]ssure PM USA's long term prospects by obtaining our historic share amongst entry-level adult smokers," Philip Morris must "Contemporize all Marlboro creative with more arresting promotional advertising like Adventure Team and racing, Develop the Marlboro Adventure Team and similar high quality continuity programs into long term

affordable promotion in C-stores [convenience stores], Reinvigorate Marlboro Medium with stronger and more relevant advertising, Develop an alternate mainline campaign to Marlboro Country/Cowboy, and Relaunch Bucks, including a lower priced box, with an irreverent advertising campaign meaningful to the young adult smoker."

1476. A document dated November 23, 1992 entitled "Philip Morris Marlboro Adventure Team Flex Fund Promotions For Retail Masters Full Participants Who Accept the MAT Promotion" discussed two promotions "intended to increase visibility and build Marlboro sales." The two programs, "Win the Gear Here" and "Win the Adventure of a Lifetime," were consumer sweepstakes run by retailers in conjunction with the Marlboro Adventure Team promotion. As discussed above, the Marlboro Adventure Team promotion was one marketing tool recommended in the October 8, 1992 "PM USA Business Update" to obtain Philip Morris's "historic share amongst entry-level adult smokers."

1477. A December 1992 Philip Morris document entitled "Motorsports Sponsorship Marketing Review" discussed the marketing of Marlboro to 18-25 year olds. The document stated: "Motorsports Overall Objectives . . . To look at current and new program opportunities to extend our reach with starters and young adult smokers . . . Formula 1 Marketing Strategy Media: Focus on TV, cinema, and innovative outdoor campaigns; explore new programming, eg., MTV." As discussed above, racing-themed promotion was one marketing tool recommended in the October 8, 1992 "PM USA Business Update" to obtain Philip Morris's "historic share amongst entry-level adult smokers."

1478. According to the "Philip Morris USA 1994-1998 Plan Overview," in 1993

Marlboro had approximately a 60% market share among young adult smokers, and Philip Morris understood these "favorable demographics" as the "key to long-term growth." This share of young smokers is disproportionate to Marlboro's overall market share of approximately 40%.

1479. In 1993, Philip Morris conducted research among 21-34 year olds to determine the effectiveness of various Marlboro advertising themes, among them the western cowboy theme and the Marlboro Adventure Team promotion. This "Marlboro Adventure Team Image Study" was summarized in a July 1993 document. As discussed above, the Marlboro Adventure Team promotion was one marketing tool recommended in the October 8, 1992 "PM USA Business Update" to obtain Philip Morris's "historic share amongst entry-level adult smokers."

1480. During a March 26, 1993 speech, Michael Szymanczyk, Senior Vice President of Sales at Philip Morris, stated, "The fact that there is not a clear discount brand leader among 18 to 24 year old smokers suggests that whoever catches these smokers may be able to retain them over a longer period of time." Szymanczyk further stated that "we have to maintain our 60 share of young adult smokers, since we know that they are our future."

1481. "Marlboro Friday" occurred on April 2, 1993, when Philip Morris cut the price of the world's best-selling cigarette by almost 20%. Marlboro Friday successfully ended the price war that "discount" (cheaper) brands had been waging on the "premium" brands such as Marlboro. Prior to Marlboro Friday, Marlboro's share of the United States cigarette market, once around 30%, had fallen back to 22%. Philip Morris, like the other Cigarette Company Defendants, had responded to the gradually falling volume of cigarette consumption in the 1980s and early 1990s by pushing up prices to maintain profits. Manufacturers of generic cigarettes had

held down prices to maintain volume. The widening gap between premium and generic products had been filled by low cost brands. American Tobacco – which had once dominated the United States industry but had since undergone steady decline – was filling that gap. However, Marlboro Friday halted the growth of the discount brand market and American Tobacco quit the market altogether, selling the remains of their operations to BATCo. By 1994, due to the significantly lower cigarette prices that resulted from the Marlboro Friday's sharp reductions of the wholesale prices of premium cigarettes, total cigarette consumption stabilized – a reversal of the previous ten consecutive years' trend to decline. By 1995, Marlboro had regained its lost market share, and premium and generic prices were rising together.

1482. Szymanczyk stated in a speech to Equipment Manufacturers in October 1993: "Marlboro's age profile reveals a brand that has a higher share among each successively younger adult age group. Its share of adult smokers under age 25 is greater than the combined share of all other brands, premium or discount."

1483. Philip Morris's "1994-1998 Plan Overview," apparently drafted in 1993, listed as Philip Morris's primary goal the delivery of "predictable IFO growth, cash flow and share growth." The document stated: "Marlboro has over a 60% share of young adult smokers. Its share of the young adult smokers coupled with its ability to retain the loyalty of smokers as they age are Marlboro's largest assets and the foundation of its growth."

1484. A 1994 document entitled "Conclusions of our issues facing Marlboro worldwide" was sent as an attachment to a memorandum titled "Marlboro summit in Monaco" from Bob P. Roper, International Vice President of Marketing for Philip Morris, to Geoffrey Bible, President

and Chief Executive Officer of Philip Morris Companies. The document stated: "Generally speaking in Asia, the full flavour segment is declining Despite that, Marlboro Red's share of young adults and beginners is up everywhere which is encouraging."

1485. Jeanne Eiban and Linda Schwartz, both in Philip Morris's Direct Marketing Group, sent an interoffice memorandum dated February 9, 1994, to Roy Anise, a Manager in the Philip Morris Market Research Department, proposing "heavy-up name generation options in Region 5" because of the paucity of information regarding that Region's 21-25 year olds in Philip Morris's database. The memorandum stated that "Marlboro's goal is to maximize the number of YAM/YAF smoker contacts in this geography, and subsequently follow-up with branded direct mail packages to these smokers in order to establish an on-going line of communication."

1486.

[REDACTED]

[REDACTED]

[REDACTED]

1487. In _____ dated April 4, 1994, a mother requested that Philip Morris cancel the Marlboro Adventure Team Gear order made by her underage daughter, and that Philip Morris cease sending mail to her daughter.

1488. The 1994 Revised Marlboro Media Plan dated May 20, 1994, stated that an objective is "to find the most effective and efficient balance of media which reinforce/build brand image among key YAS 21-24."

1489. A July 13, 1994 research report entitled "Generation X Focus Groups" written by Marian Halpern, Brand marketing for Philip Morris, indicated that the 18-24 year old focus group respondents appreciated "ads containing humor" and "seek[ing] out new experiences." In conclusion, Halpern wrote: "The findings from this research suggest that Generation Xers will respond to marketing efforts that are different than those to which they have already been exposed. . . . Subject matter that is relevant to Generation Xers (new adventures, fun) could be incorporated in promotions and advertising. Further, the approach could be on a personal rather than a global level, appealing to their self-focus. Importantly, any marketing effort aimed at this audience should not obviously target them because they find that unappealing." Generation X, a term encompassing the entire post-baby-boomer generation (approximately, born between 1966 and 1985), at this date included individuals under 18 years old.

1490. The Philip Morris Continuous Smoker Tracking Survey is a telephone survey commissioned by Philip Morris and performed by its various market research suppliers. It is a ongoing survey that Philip Morris has conducted since approximately 1980. Until 1988, the

survey was conducted approximately twice per year. In approximately 1988, upon recommendation of Carolyn Levy, director of the department handling the survey, the data collection methodology was modified to become a "continuous" study in order to avoid "gaps" in information. The method of calling is a "random digit dialing" procedure, where surveyors call people who claim to be adult smokers and ask them questions about their cigarette brand preferences and their buying behavior. According to Levy's testimony at her June 2, 1998 deposition, "[H]istorically, and we continue to this day, our method is to go for the youngest male who is at home. So the idea was you select the youngest male adult smoker in the household who's home at the time We try to go to the hardest to find first [the youngest male] if they are there." Questions asked include: the promotions they may have seen or purchased; the cigarette brands they have purchased in the last week; the type of store at which they purchase cigarettes; whether they are saving Marlboro Miles; their knowledge of certain brand images; promotion and advertising awareness; and the number and ages of all smokers in the household.

1491.

[REDACTED]

[REDACTED]

[REDACTED]

1492.

[REDACTED]

[REDACTED]

1493. A November 29, 1994 draft of the Ohio report showed Philip Morris's knowledge that underag e draft contained the following conclusion: " ppe airly regular basis. Approxima that minors under the age of 18 attempt

to purchase cigarettes in their store at least once a day. Of these, more than half say this happens at least three to four times a day including 16 percent saying this happens ten times a day." This conclusion was omitted from the final report.

1494. A document entitled "Proposed Script for Marlboro Story," apparently drafted in 1995, traced the development of Marlboro advertising themes from the Marlboro Man to the Marlboro Racing Team and Marlboro Adventure Team. The document indicated that the Marlboro Man represents independence and rugged independence, whereas the promotional events Marlboro Racing Team and the Marlboro Adventure Team use themes of freedom and adventure. As discussed above, the Marlboro Adventure Team promotion was one marketing tool recommended in the October 8, 1992 "PM USA Business Update" to obtain Philip Morris's "historic share amongst entry-level adult smokers."

1495. Nancy Lund, Senior Vice President of Marketing at Philip Morris, testified at her June 27, 2002 deposition in this case about a study entitled "Metro Area Consumer Retail Master Study." This study, apparently drafted in the 1990s, was performed by Philip Morris to learn where it should place Philip Morris cigarette products in retail stores to ensure that its products drew the maximum amount of consumer attention. As part of the study, consumers wore eye-tracking glasses while shopping to learn what displays and products drew the most consumer attention in retail outlets. The study found that the best, most visible, spots were "on the counter, behind the counter or cashier, and on and around the door." Currently Philip Morris's cigarette displays are consolidated behind the counter at retail outlets, and its point-of-sale materials are similarly placed. The study also reported that Retail Masters' stores provided higher visibility for

Marlboro than other cigarette brands.

1496. [REDACTED]

[REDACTED]

1497. [REDACTED]

[REDACTED]

1498. [REDACTED]

[REDACTED]

1499. A September 18, 1995 research proposal produced from the files of Karen Eisen, Manager of Youth Smoking [REDACTED] ated that Philip Morris solicited research proposals for national consumer research to profile the demographics, lifestyle, world view and culture, and entertainment and media consumption of urban young people

between the ages of 18 and 24.

1500. A Special Roper Reports Analysis dated January 1996 entitled "'Talkin' About My Generation:' An Examination of Generation X" discussing the Roper organization's study of the purchasing behavior of Generation X (1966-1985) was prepared for Philip Morris and presented to a group of Philip Morris Brand and Consumer Research employees. The document was produced from the files of Karen Eisen, a marketing researcher at Philip Morris.

1501. A Philip Morris document entitled "Metro YAS Tracking Study, Post Wave I, Final Report" stated that, at least as recently as 1998, Philip Morris launched nationally in urban metro areas retail visibility, promotion programs, and bar programs, to counteract the decrease in Marlboro's share among so-called young adult smokers, to increase Marlboro's "top-of-mind" awareness and "perceived popularity." At her June 27, 2002 deposition in this case, Nancy Lund confirmed that these programs were launched "to increase [Philip Morris's] share of young adult smokers."

1502. [REDACTED]

[REDACTED]

1503. At her April 16, 2002 deposition in this case, Shari Teitelbaum, Director of Marketing and Sales Decision Support at Philip Morris, testified that Philip Morris markets its

products to smokers 18 years old and older. Teitelbaum testified that Philip Morris continues to conduct extensive research into the preferences of young smokers beginning at age 18, in focus groups, triads, and in-depth one-on-one interviews. Teitelbaum also testified Philip Morris uses the term "herd smoker" to refer to the most popular cigarette brands, like Marlboro, Camel, and Newport, because these brands attract the largest share of young-adult smokers. Herd brands are "the most popular, it's for smokers that would be likely to kind of follow the herd, kind of more of a group mentality type of thing."

1504. At his May 31, 2002 deposition in this case, Michael Mahan, Vice President of Marketing and Sales of the Asia-Pacific Region for Philip Morris, testified that Philip Morris markets its products to smokers 18 years old and older, and further testified that some of Philip Morris's marketing efforts such as bar night programs are specifically directed toward young adult smokers which he defined as smokers age 18 to 24. Mahan testified that Marlboro's "prime target" is young adult smokers. Mahan testified that he attributes Marlboro's overall success to the original positioning of the brand, good marketing, and a good quality product. Mahan described Philip Morris's communication strategy for Marlboro as using high-quality visuals and focusing advertising on the core elements of the campaign, which are "Come to where the flavor is" and "Marlboro country."

1505. Suzanne LeVan, Vice President of Marlboro and former Vice President of Philip Morris Premium Brands, has been at Philip Morris since December 1991. At her June 25, 2002 deposition in this case, LeVan testified that, as current head of the Marlboro brand group, she is the highest level person at Philip Morris who is responsible for marketing Marlboro. LeVan

testified that Marlboro's brand image has not changed since 1954. Marlboro's brand imagery is an "image that portrays quality, freedom, independence, adventure, and the gateway to the American frontier, the American West."

(b) Internal Documents and Other Evidence Establish That Liggett Knew That Its Above-Referenced Statements About Youth Marketing Were False When Made

1506. Francis K. Decker, Jr., of Webster Sheffield Fleischmann Hitchcock & Brookfield sent an August 9, 1968 letter to Frederick P. Haas, Vice President and General Counsel of Liggett, with an attached abstract of an article on student smoking in an unnamed city in the Soviet Union. The article indicated that "at a particular high school in the Soviet Union approximately 50% of vocational high school students were smokers. All this was achieved without advertising."

1507. On March 20, 1997, Bennett LeBow, Chief Executive Officer of Vector Tobacco and controlling shareholder and Chief Executive Officer of Vector Group Inc., the holding company that is 100% owner of both Liggett, Vector, and Liggett Vector Brands, testified that "Liggett acknowledges that the tobacco industry markets to youth, which means those under 18 years of age, and not just those 18 to 24 years of age."

1508. In his September 27, 1997 deposition, LeBow confirmed that his attorneys, after reviewing Liggett documents, informed him that the Cigarette Company Defendants targeted young people with their advertising and marketing. LeBow testified that the purpose of targeting young people was "to try to keep people smoking, keep their [cigarette] business going," because, if young people did not start smoking, the Cigarette Company Defendants would "have no

business in this generation." LeBow also indicated that his attorneys told him that they found some Liggett documents that indicated that Liggett cigarette marketing had been targeted at the young.

1509. On November 2, 2000, Liggett stated that "it acknowledges that the tobacco industry has marketed to youth, which means those under 18 years of age, and not just those 18-24 years of age."

1510. [REDACTED]

[REDACTED]

1511. At his June 21, 2002 deposition in this case, LeBow reaffirmed his earlier admission that the Cigarette Company Defendants targeted youths.

(c) Internal Documents and Other Evidence Establish That Lorillard Knew That Its Above-Referenced Statements About Youth Marketing Were False When Made

1512. A July 24, 1963 letter from Shirley Young of Grey Advertising, Inc., to Richard F. Kieling, Director of Market Research at Lorillard, discussed the "initial tabs on the most recent wave of the Lorillard study." This study samples people as young as 16.

1513. A November 8, 1963 letter from Nicholas E. Keesley, Senior Vice President, Radio-Television, Lennen & Newell, Inc., enclosed a picture of two adults with a child of about twelve examining a cigarette package to Manuel Yellen, Vice President at Lorillard. In the

attached note, Keesley wrote: "There's nothing like starting them out young! 'Ritchie' is a wonderful little guy and, while he doesn't smoke, he tells me he talks up Newport all the time."

1514. Yellen wrote a September 15, 1964 memorandum entitled "Lorillard Sales Position" to Morgan J. Cramer, Lorillard President and Chief Executive Officer. This memorandum stated that Newport was marketed as "a 'fun cigarette' It was advertised as such and obtained a youthful group as well as an immature group of smokers."

1515. Lorillard sent a June 2, 1966 letter authorizing Grey Advertising to conduct a "Penetration/Usage/Image" study designed to examine the success of Kent and True marketing. The letter indicated that the study's results "will be tabulated out for the age cell of 16 thru 20 years, in order that we may analyze this group separately."

1516. In approximately 1971, Philip Gaberman, creative director for Robert Brian Associates, was involved in creating a new package design for Lorillard Kicks cigarettes. Gaberman wrote a letter to Professor Charles Seide of Cooper Union, an art college, regarding the use of his students in creating the Kicks package design, which stated: "We're adults. You've got a group of talented kids. Hence this letter. We have been asked by our client to come up with a package design . . . a design that is attractive to kids . . . (young adults). We were wondering if this project might serve as a challenging assignment for your package design class(es) Note: While this cigarette is geared to the youth market, no attempt (obvious) can be made to encourage persons under twenty-one to smoke. The package design should be geared to attract the youthful eye . . . not the ever-watchful eye of the Federal Government."

1517. F.B. Satterthwaite, Lorillard, wrote a June 7, 1973 memorandum to Curtis H.

Judge, President of Lorillard, regarding Lorillard's analysis of its own and its competitors' brand shares by age. Satterthwaite stated that "[t]he company analysis, based on cumulative brand shares by age group though correct as far as it goes, is misleading. The favorable trends toward youth for R.J. Reynolds, [Philip Morris] and Brown & Williamson are completely explained by three brands - Winston, Marlboro and Kool, respectively. Without these three brands these companies present an older age pattern similar to the other two companies. The exclusion of Newport from their most recent period is detrimental to the overall Lorillard pattern."

1518. Charles W. Toti, Marketing Group Director of Product Development at Lorillard, sent an interoffice memorandum dated October 24, 1974, entitled "Young Adult Extra Effort - Newport" to Robert J. Ave, Executive Vice President of Marketing for Lorillard. This memorandum recommended "that Newport institute a special advertising promotion effort against the young adult."

1519. A report entitled "A Special Presentation for Lorillard . . . Cigarette Advertising 1974-1975" by Gallup was produced from Lorillard's files. In this report's "Magazine Impact Research" section, the effectiveness of advertising in particular magazines was gauged, including in the category of "Glamour (Age 15-34)" magazines such as, among others, Seventeen and Teen.

1520. E.J. Greene, Lorillard, sent a letter dated March 17, 1975 to A. Judson Bass of Lorillard which stated that "[t]he Newport T-Shirt offer for March is great for the displays around colleges where younger people congregate."

1521. A document dated June 10, 1975, contained the script of an address given by

Curtis. Judge, to a "Maxwell Tobacco Seminar" regarding Lorillard's marketing strategy for the latter half of the 1970s. In the address, Judge stated: "Recent research indicates the Old Gold brand smoke profile has changed dramatically over the past few years from an older, blue collar market to a young adult market with better education and better income. We are currently testing new marketing efforts which are designed to develop strong appeal for Old Gold among this target audience." Judge also discussed Zack, a new filter cigarette "designed to find a place within today's casual, young adult lifestyle."

1522. An August 11, 1975 document prepared by the Marketing Corp. of America for Lorillard regarding new products stated that "the reasons behind Lorillard interest in additional entries into the market include: . . . the need to attract young smokers, particularly young male smokers to the Company's total franchise."

1523. In an August 22, 1975 Lorillard document entitled "Progress Report - Zack Filter and Menthol," R.E. Ritchie reported that "retailers continue to comment that the majority of consumers are younger people between 14 to 25 years of age. Sales from types of accounts like convenience stores continue to support these comments. I feel another sample program is needed with emphasis placed in the suburban areas where the younger people can be reached, and this to be done with outside samplers."

1524. In a June 10, 1977 Lorillard memorandum from J. Gordon Flinn, Director of Market Research for Lorillard, to Curtis Judge, Flinn projected that, of the fifty-five million smokers in 1977, youths aged fourteen to seventeen accounted for 28% of the total.

1525. An August 30, 1978 Lorillard memorandum from Ted Achey, Area Sales

Manager for Lorillard, to Judge regarding "Product Information" demonstrated that Lorillard recognized the significance of the underage market:

The success of NEWPORT has been fantastic during the past few years. Our profile taken locally shows this brand being purchased by black people (all ages), young adults (usually college age), but the base of our business is the high school student. Newport in the 1970s is turning into the Marlboro of the 1960s and 1970s. It is the 'in' brand to smoke if you want to be one of the group. Our problem is the younger consumer that does not desire a menthol cigarette. If that person desires a non-menthol, but wants to be part of the "in" group, he goes to Marlboro I think the time is right to develop a Newport natural (non-menthol) cigarette to attract a young adult consumers desiring a non-menthol product (a good test area might be Camden, New Jersey). (Emphasis added)

1526. In an October 24, 1978 memorandum to Connie Humphrey, Lorillard, Kenneth Heidelberg of the advertising firm Foote, Cone & Belding, discussed the conclusions of Lorillard's 1978 Switching Study Analysis. Heidelberg suggested approaching a "younger" market for Kent.

1527. A January 5, 1979 letter from Edward Ricci of MCA-Graham Advertising to Tom Mau, a future Senior Vice President at Lorillard, regarding the appeal of Newport box, stated that an advantage of the box is "attracting a greater percentage of young adult new entrants."

1528. A handwritten memorandum dated June 7, 1979, stated that "a brand geared to a younger age bracket may be beneficial in bringing new, young smokers into the Lorillard market." Handwritten edits changed the sentence to read "a brand geared to a young adult age bracket may be beneficial in bringing new smokers into the Lorillard market." The memorandum was produced from the files of Lorillard.

1529. A 1980 Lorillard document entitled "Replies to 5-year Plan Questionnaire" stated that "the easiest [brand] to keep riding is Newport. However, I think we must continually keep in mind that Newport is being heavily supported by blacks and the under 18 smokers. We are on somewhat thin ice should either of these two groups decide to shift their smoking habits."

1530. A report dated October 1981 entitled "An Exploratory Study for Newport, Smoking and Purchase Behavior of Young Adults" was written by Shoi Balaban of Dickinson Research, Inc. for Lorillard. The report stated that the study's objectives included determining the "smoking and purchase behavior of young men and young women 18-24 years of age." The study discovered that "one-half of [the] respondents began to smoke at ages 10 to 13 years, with most of the remainder starting to smoke between 14 to 17 years of age . . . among these participants, it was rare to start smoking at an age older than 18 years."

1531. A November 25, 1981 Lorillard document entitled "Smoker Incidence by Age Groups" attached estimates of smoking incidence (the number of smokers) within eleven age groups for the total population. The incidence chart included smokers aged 13 to 17. The author relied on census bureau projections, internal "switching study data," and government studies on smoking among teenagers, and stated that "the teenage smoking figures are the least reliable."

1532. A March 14, 1983 Lorillard document regarding magazine and newspaper data detailed which magazines were likely read by teenagers 12 to 17 years old. The document stated that: "[T]here is no reliable research on 12-17 year olds. Lorillard and its agencies use only the adults 18+ figures when analyzing media. . . . [T]here was a 1976 study that measured teenage readers but the firm (TGI) is no longer in business." In order to determine teenage readership, the

document relied upon United States census figures to calculate the proportion of the population made up of teenagers, and derived teenage readership from that calculation: "Based on these figures, if we assume that teenagers read as much as their parents, then approximately 12% of any magazine readership would be teenagers."

1533. Laurie R. Moroz of Lorillard stated in a September 2, 1983 memorandum to Curtis H. Judge, President of Lorillard, that "because the number of teenagers is declining rapidly, even a stable smoking incidence would mean a declining number of entering smokers."

1534. A 1984 Lorillard document entitled "KENT marketing manager's conference speech presented by Mr. "Monty" Kiernan, product manager, and Vickie Lamb," stated: "A year ago we unveiled a new long-range plan for Kent. It targeted sharply against the new market of younger smokers and was based on new totally offensive marketing strategies. Every element in the brand's marketing mix has now been fine tuned. In 1985, we will move beyond the planning phase, we are into implementation. . . . You also know that with our industry under pressure and the competitive climate intensifying, any constraint to new user trial is unacceptable. . . . In recent years, entry level smokers . . . have gravitated to more artificial, smoother, fuller flavored brands. As a result the entire market is shifting . . . In 1985, Kent will make its move to meet this shift in consumer demand. We []now have every element in place. We have targeted advertising and promotional programs to pull us younger. Most importantly, [we] now have the product modification that can pull us up with no disruption to our user base. Combined, the totally integrated effort will drive Kent into a market growth position by mid-1985. By year's end, we should be strategically positioned to exploit maximum sales and profit opportunities."

1535. A February 20, 1984 Lorillard document entitled "Topic Guide for Young Menthol Smokers" provided ways for an interviewer to gather information about young smokers. This document included a list of questions to ask young adults, including: "1) How many packs do you usually buy at a time? 3) When do you buy cigarettes in a store, do you notice if some brand has a special display? 4) Sometimes you might get a small free sample pack of a brand. Have you ever bought the brand later based on trying the sample? 5) How do you think of the cost of cigarettes compared to other things you buy – expensive, cheap, or what? . . . 8) Quite often there are brands on display that are being promoted at a lower price than other brands. When you see that type of offer do you ever take advantage of the lower price? . . . 10) What do you think of the idea of being able to buy cigarettes in packs of 10 cigarettes, which would be priced at half of what you now pay for a pack? Under what circumstances can you imagine yourself buying a 10-pack?"

1536. Richard DiDonato, Division Manager at Lorillard, wrote in a March 16, 1989 document that large, bright, and extremely eye catching point-of-sale materials are helpful in gaining consumer awareness of the products.

1537. The "Newport 1992 Brand Plan" recommended targeting the young adult market through print media "to increase brand awareness and reinforce brand image."

1538. As recently as August 1993, Lorillard sought to license the Harley Davidson name for use with a new youth cigarette.

1539. In two letters, one dated August 17, 1993, and the other dated August 27, 1993, Timothy K. Hoelter, Harley-Davidson Vice President and General Counsel, wrote to Ronald

Goldbrenner, Lorillard Associate General Counsel, expressing Harley Davidson's concern that Lorillard's proposed upcoming cigarette advertising campaign to intrpduce its new Harley Davidson brand, especially when combined with the low price of the brand, would appeal to underage smokers. In fact, Hoelter indicated that Harley Davidson had hired a market research firm specializing in child research to evaluate the Lorillard advertising campaign, and that this firm had concluded that "the campaign will appeal to underaged children."

1540. By letter dated August 30, 1993, Goldbrenner responded to Hoelter's August 27 letter by warning Harley-Davidson as follows: "In your letter you refer to market research which Harley-Davidson has conducted. As you know, Lorillard's 'American Quality' campaign is an important trade secret, as are the timing and details of virtually all new products and advertising campaigns. Your letter raises serious concern on our part for the basic protection of very important Lorillard trade secrets. . . . Furthermore, if such research has been improperly conducted or analyzed, it may be very damaging to the reputation and business of Lorillard's disclosure, whether or not trade secrets are involved. . . . We would further appreciate your forwarding to us an immediate copy of the test results and methodology so that we will be better able to discuss this matter with you. We cannot impress upon you too strongly your obligation to maintain these materials in confidence and to permit us to review and validate the market research you describe so that we may properly assess this matter."

1541. In another letter dated September 27, 1993, Hoelter wrote back to Goldbrenner, stating that "Lorillard needs to recognize that, based on what we know now, Harley-Davidson cannot withdraw its pending veto without an agreement about changes to the proposed

advertising campaign or additional data showing that the advertising steers clear of underage smokers."

1542. Despite Hoelter's letters protesting the youth appeal of Harley-Davidson cigarettes, Lorillard proceeded to introduce this brand and continues to market these cigarettes today.

1543. Newport's 1994 Brand Plan dated November 16, 1993, stated that "Newport's creative product must strengthen Newport's competitive edge as the 'peer' brand among younger adult smokers," and that Newport is "positioned to appeal primarily to general market/urban center adult smokers ages 18-24."

1544. Riva Qualitative Market Research wrote "Final Report on Eight Focus Groups With [Black] and White Users of Newport, Salem and Kool Cigarettes On Issues Related to Newport Cigarettes and Its Advertising Campaign" dated January 1994 for Lorillard. This report stated that "Lorillard's Newport brand recognizes younger adult smokers as an important consumer base for this cigarette. This market is defined as a 'twenty-something' market; adults ages 18-29."

1545. In approximately 1998, Lorillard placed in newspapers and magazines a nationwide advertising campaign for Newport cigarettes captioned "Pleasure! Fire It Up!" Among several treatments, "Pleasure! Fire It Up" advertising depicted attractive young men and young women smoking cigarettes often in circumstances involving sports and other physical activities.

1546. Lorillard's 2002 marketing and promotion budget was approximately \$580

million, with most of that budget allocated to Newport.

1547. At his May 16, 2002 deposition in this case, Victor D. Lindsley, III, Senior Group Brand Director at Lorillard, testified that the long-running advertising concept of "Newport Pleasure" "should be appealing to anyone that likes to have a good time." Lindsley also testified that the advertising theme of "pleasure" used by Newport appeals to all ages, especially the advertised "pleasure" of hanging out with friends.

1548. As acknowledged by George Telford, Vice President of Brand Marketing at Lorillard at his June 26, 2002 deposition in this case, the Newport campaign uses the same themes known to be attractive to youth, including socialization, having fun with friends, and risky independent outdoors activities.

1549. At his June 26, 2002 deposition in this case, Telford testified that, as part of Lorillard's direct marketing efforts, the company collects demographic information about smokers' age, sex, and race which is used by Lorillard to target its marketing efforts. Telford further testified that Lorillard tailors its advertising for different brands based on the particular demographic profile of those brands. Because Newport ads are targeted at the younger segment of the adult smoking population, Lorillard advertises for Newport in publications like Sports Illustrated, Playboy and Penthouse.

(d) Internal Documents and Other Evidence Establish That BATCo, Brown & Williamson, and American Tobacco Knew That Their Above-Referenced Statements About Youth Marketing Were False When Made

1550. In a September 25, 1957 document, F.X. Whelan, American Tobacco Company Assistant Treasurer and Credit Manager, stated: "The first cigarette to saturate the morning

television market will achieve positive results. There is also the point that there is a vast audience of children at this time of day and, while I am not prepared to discuss the ethics of this particular phase, a child accompanying his mother to the market has an overwhelming passion for suggestion. Many a Saturday I have gone to the A&P in my town and come back with several excess items over my wife's list because my children who were with me had seen a product advertised on television and wanted it." Whelan concluded: "To sum up, I believe the advantages in morning television are . . . [i]t delivers the message to the housewife at the best possible time – and to her children."

1551. An April 6, 1960 American memorandum stated that "Bonanza" would be a better television venue for Lucky Strike than "Lawrence Welk" because "Bonanza" was viewed by a greater number of people in the "younger age groups." An included chart indicated that three times as many "teenagers (boys and girls 13-17)" watch "Bonanza" as those who watch "Lawrence Welk."

1552. A May 25, 1960 report by Charles Ellis for BATCo stated, "The sale of cigarette depends on how it is advertised to the public. . . The key of the matter is that public taste, molded by advertising, sets a specification and this the manufacturer must meet."

1553. A proposal to the Tobacco Manufacturers' Committee by Market Investigations, Ltd. proposed further studies of youth smoking habits. The August 30, 1962 report entitled "Smoking by Children and Adolescents, Memorandum on Further Research to the Tobacco Manufacturers' Standing Committee." The Tobacco Manufacturers' Committee's Board was comprised of BATCo officers, and they performed similar functions as the Council for Tobacco

Research in the United States. This proposal suggests interviewing children as young as ten and stated: "Children in their teens present a dilemma for the tobacco manufacturer. On the one hand you want to discourage children from smoking. . . on the other hand, it is difficult for you to lend your weight to a campaign against smoking by young people without running the risk of discouraging them from taking up smoking altogether."

1554. On December 15, 1967, Brad H. Littlefield sent Brown & Williamson internal Correspondence to J.W. Burgard regarding "Analysis of Youth Audience Subgroups" for television viewing. Littlefield discussed the 2-20, 2-17, 6-20, 6-17, and 12-17 age groups as audiences for prime time television, 7:30-11:00 p.m., EST.

1555. Mark F. Fox, Product Manager for American Tobacco, sent an analysis dated January 1, 1968, of the Tareyton brand demographic profile to Cleave Michaels. This document explained: "Specifically, the brand shows greater than average strength among women, the high school educated and the 16-20 age group. Correspondingly, the brand shows weakness among men, the college educated and the 21-34 age group."

1556. A report dated April 3, 1970, discussed a "1969 Survey of Cigarette Smoking Behavior and Attitudes" performed for American Tobacco. The survey was performed on consumers aged sixteen and over, and included data indicating that at age fourteen, 60% of boys who would become smokers had already smoked their first cigarette: "The age at which people start to smoke regularly is an important factor in assessing the future markets for cigarettes." In the survey, consumers were asked the following question: "What brand or brands of cigarettes come to mind when I say: Is best for people who are just starting to smoke regularly?" The

survey also recorded negative reactions to first cigarette smoked including "coughing," "unpleasant," "dizzy" or "ill."

1557. From 1972 to 1976, Brown & Williamson had a Viceroy racing sponsorship in order to compete with Marlboro's success among young males.

1558. An internal Brown & Williamson Project Report dated September 9, 1972, entitled "Youth Cigarette - New Concepts" contained suggestions to develop cigarettes with new types of flavoring, such as Coca-Cola.

1559. A 1973 Brown & Williamson "strategy statement" entitled "New Product Concepts" stated Brown & Williamson's strategy for its "[d]irect target group: 6.3 million 16-25 year old smokers." The strategy was "[t]o improve Brown & Williamson's position in attracting young male smokers by making as direct an appeal as possible in product, packaging, and advertising to young males." Possible names for a cigarette appealing to this segment included Laredo, Lancer, Durango, Champion, and Voyager.

1560. A February 21, 1973 internal Brown & Williamson memorandum from R.L. Johnson to R.A. Pittman regarding KOOL sales recommended that Brown & Williamson should focus its media spending on the magazines that teenagers read: "KOOL's stake in the 16-25 year old population segment is such that the value of this audience should be accurately weighted and reflected in current media programs. As a result, all magazines will be reviewed to see how efficiently they reach this group and other groups as well." Johnson explained the reason for its targeted approach: "KOOL has shown little-or-no-growth in share of users in the 26+ age group. Growth is from 16-25 year olds. At the present rate, a smoker in the 16-25 year age group will

soon be three times as important to KOOL as a prospect in any other broad age category."

1561. A 1974 Brown & Williamson report entitled "Young Adult Smoker Life Styles and Attitudes," had as its purpose "to gain insight into the perceptions, attitudes and behavior of younger, recently starting smokers regarding initial product usage, current smoking and health concerns." Included in the findings was the statement that smoking starts with younger people for four reasons: "The first factor is the desire of young people to look older than they really are. The second is peer pressure and doing what friends and authority figures do. The third reason is to rebel against parents with only modest risk. The fourth reason identified had to do with physical reaction. This physical reaction was described as a 'high' or as a challenge to be strong enough to smoke without getting sick." Brown & Williamson designed its marketing campaigns around themes that would exploit these attitudes.

1562. On or about May 31, 1974, J. F. Monohan, Brown & Williamson field manager, submitted a handwritten Field Manager's report including a suggestion for targeting youth with the "Don't Be Boxed In" Kool campaign: "To reach the 'youth market' a little human illustrated character could be a dissatisfied smoker of his present brand. . . . This could be possibly used on billboards in the areas where Salem Box and Marlboro Menthol Box are . . . advertised." A June 12, 1974 letter to Monohan stated that Monohan's idea "has been sent to our [Brown & Williamson] Advertising Department for their consideration."

1563. A June, 1974 Brown & Williamson document described a plan to "[p]lace marketing efforts against all current smokers and those who are predisposed to commence smoking in the near future."

1564. A September 1974 report written by Kenyon & Eckhardt, Inc. for Brown & Williamson's New Ventures Project, entitled "The New Smoker," detailed Kenyon's focus group research: "The purpose of this research was to gain insight into the perceptions, attitudes and behavior of younger, recently starting smokers regarding initial product usage, current smoking, and health concerns." Focus groups were conducted on regular smokers under twenty-two years of age, and data was tabulated for smokers sixteen years of age and older. The research identified the typical initiation process occurring before age ten, and continuing in junior high school or the early high school years. Influences on initiation included the desire to belong to a group, and to rebel against parents. The research found that smoking initiation was prompted by psychological reasons: "[O]vercoming the unpleasant physical reaction became a strongly motivated goal. The psychological rewards for "conquering" smoking seemed to center on proving manliness and strength to themselves and others and, for the most part, they seemed to feel it was worth the effort." The study concluded that "[t]he younger smoker is of pre-eminent importance."

1565. A September 23, 1974 Brown & Williamson five year plan for all of Brown & Williamson's brands written or approved by Richard L. Johnson in B&W's Advertising and Marketing Planning Department (which he subsequently managed), stressed the importance of effective marketing to young "starters" for the continued profitability of the company. The plan stated that, although Brown & Williamson's share of smokers under twenty-five was greater than the rest of the industry, this was due to Kool: "[w]ithout Kool's influence, the Company's profile is female, old and getting older . . . a relatively undesirable situation." The document anticipated

a coming battle over the shrinking pool of 16-25 year old potential smokers: "[T]he younger smokers' importance cannot be denied. They have distinct brand choices and association appears to exist between growth brands and segments, and the younger smoker. Industry switchers and starters are predominantly found in this under-25 year old category -- especially among women. If the pool of starters and switchers shrinks, as it is expected to, even more effort could be waged against under-25 year olds in the battle for remaining new users." It indicated that youth smokers were the market's growth: "among under 25 year olds, users have almost doubled. KOOL's growth in this market is the greatest of any brand. It is also the fastest growing cigarette in the total market." The document concluded with the recommendations that "[n]ew ways to selectively reach younger smokers and females entering the market should be found," and "[t]he need to make revitalization programs on established brands work is now critical." It summarized: "Segments or brands with attraction to the young and the female will be more likely to grow than segments or brands with male or older appeal. . . . Advertising funds may be more productively employed on growing brands than on declining brands in a more stable environment. In that regard, the transfer of advertising money from declining brands to growing brands could be worthwhile."

1566. A December 11, 1974 Brown & Williamson document entitled "Marketing Planning Project Specifications Sampling" provided a framework for product sampling activities. This document stated that "those [smokers] who are most inclined to switch (people under 30) are hard to reach selectively."

1567. A December 12, 1974 Brown & Williamson report entitled "Target Audience

Appendix" stated that the target audience for KOOL was a "pool of switching smokers" including 2.5 million people aged 16-25. The document also stated that the target audience for the KOOL King Size sampling effort should include 15-24 year olds.

1568. A 1975 Brown & Williamson marketing presentation entitled "Cigarette Brand Switching Studies" stated that "KOOL has a young age profile. The largest proportion of KOOL's smokers are between 16 and 25 years of age," and that "KOOL's young age profile contrasts with the older age profile of the other major menthol brand – Salem and is more similar to that of Marlboro."

1569. A May 26, 1975 report entitled "What Have We Learned From People? A Conceptual Summarization of 18 Focus Groups Interviews on the Subject of Smoking," was prepared for Brown & Williamson by the Ted Bates agency, and in part concerns a proposed campaign for Viceroy. The document proposed that the Viceroy campaign "[p]resent the cigarette as one of a few initiations into the adult world. Present the cigarette as part of the illicit pleasure category of products and activities Consider a sampling technique to allow the young starters to actually try your brand In your ads create a situation taken from the day-to-day life of the young smoker but in an elegant manner have this situation touch on the basic symbols of the growing-up, maturity process. To the best of your ability (considering some legal constraints) relate the cigarette to 'pot', wine, beer, sex, etc." At a minimum, this indicates B&W's failure to insist that its advertising agencies adhere to the restrictions of the voluntary Advertising Code, and suggests that the Code was little impediment to B&W's marketing efforts.

1570. A document dated September 10, 1975 from L.M. Marshall, Jr., Ted Bates

Advertising, to Mike A. Willson, Brown & Williamson, regarding "Brand switching study," stated that "Brand switching has reversed a previous downward trend and is now at 16% level, up from 14% in Wave #17 and the highest since November, 1972. This trend is consistent across both sexes and among all age groups, with the most dramatic increase evidenced in the 16-25 age group." It further stated that "Kool Milds continue to show a strong skew toward young smokers (30% in the 16-25 age group vs. 18% for Total Menthol)."

1571. A 1976 Brown & Williamson document containing information drawn from a study of smokers stated that "[t]he 16-25 age group has consistently accounted for the highest level of starters."

1572. Jane Y. Lewis, Ph.D, sent a report dated April 1, 1976 entitled "Final Report - Study of Brand Switching Among Young Adults Smokers (project # 1974-244)" to Pittman, Brown & Williamson. This report stated that "[t]he 16-25 year old smokers have a much higher level of brand switching (59%) than the 26-35 year old smokers (75%)."

1573. An August 10, 1976 document, written by Robert G. Yizak, Brown & Williamson, about the Pontiac Kool Jazz Festival, stated: "Audience composition covered the age spectrum with a slight skew toward the 16-25 age group."

1574. An August 22, 1976 Brown & Williamson document entitled "Starters, Creative Workplan" summarized Brown & Williamson's problems and Viceroy advertising objectives:

1. Key Fact. Every year two million people in this country start smoking. 50% of them gravitate toward full flavored cigarettes – Marlboro and Winston. Viceroy gets none of them.
2. Problem The Advertising Must Solve. New smokers are not attracted to Viceroy because it has no clear image either as a smoke, or in terms of its personality.

3. Advertising Objective. To convince new smokers that Viceroy has the flavor and taste that they want as well as the image that is suitable to their needs and self perceptions.

1575. A 1977 "Study of Consumer Awareness of and Attitudes Toward 24 Leading Cigarette Brands" produced by BATCo found that the three factors that determine "sales success" included "advertising pressure," "intrusiveness and memorability of ads," and "[p]ersuasive brand imagery."

1576. A Brown & Williamson document entitled "Brown and Williamson Tobacco Corporation Problem Lab" dated April 27, 1977, summarized a brainstorming session regarding Brown & Williamson's need to "measure the intensity of the attitudes of children or other precursor groups." The document contained the following ideas generated at the session:

1. Contact leading firms in terms of children research, e.g., Gilbert/Reilley.
2. Contact Sesame Street.
3. Get a raft of 15-year olds who are not smoking . . . go back 3 or 4 years later and see who is smoking.
4. Contact Gerber, Schwinn, Mattel. . . .
6. Run a series starting at 6. . . . Learn correlation between age 6 and 18.
7. Look at 13, 14-year olds and images of what they want to be.
8. Take a group of 6, 10, 14-year olds. Four years later we if can predict. Predict age group behavior based on previous response. . .
15. Wish, I knew the impact of smoking and health propaganda on kids in schools – future customers' attitudes.
16. Correlate smoking incidence between kids and parents.
17. Psychological analysis, predictions: who's going to be kids' heroes.
18. A six-month report on heroes of beginning age smokers (Do it every six months).
19. Look at images of children and images of starting smoking age – are there certain characteristics that pre-dispose a child to smoke."

1577. An October 18, 1977 Imperial Tobacco document stated, "Since how the

beginning smoker feels today has implications for the future of the industry, it follows that a study of this area would be of much interest. Project 16 was designed to do just that -- to learn everything there is to learn about how smoking begins, how high school students feel about being smokers, and how they foresee their use of tobacco in the future."

1578. An April 4, 1978 document analyzed Viceroy marketing strategy from 1967 to 1983, including discussion of attracting beginning smokers to Viceroy compared to efforts to do so by other brands, peer pressure and smoking, and Viceroy's auto-racing campaign.

1579. E.B. Wilkes, a Brown & Williamson researcher, issued notes to Drs. C.I. Ayres and R.E. Thornton on the April 17, 1978 "truth meeting of the statistical sub-committee of T.R.C." Wilkes' notes stated that "[t]he smoking habits of young people must be of interest to anyone concerned with the future of the industry."

1580. An April 17, 1978 Brown & Williamson document entitled "Implications for Cigarette Industry" stated that "imagery will continue to be important in brand selection for teenagers" and "packaging will be come more important if not the most important advertising vehicle."

1581. A November 10, 1978 Brown & Williamson document entitled "Kool Jazz Festival and Country Shindig Final Recommendations" included the Kool Brand Group's goals, one of which was to "directly link Kool to music." As a June 7, 1983 "Kool Copy Strategy," which was "formal" and "approved by Senior Management," stated, "The KOOL property uses musical symbolism to communicate the strategy. The brand desires an improved quality image and universal appeal to all age groups." A March 7, 1983 memo stamped "confidential," sent to

N.V. Domantay from E.T. Parrack, Jr., made the target of Kool's music-themed campaign more explicit: "young prime prospect males."

1582. A BATCo document dated April 4, 1979, entitled "Year 2000" listed predictions for changes from 1979 to 2000, including "[m]arkets do not examine smoking habits of those under 15." The document implied that BATCo was examining smoking habits of those under fifteen in 1979.

1583. An internal Brown & Williamson document dated September 21, 1979, entitled "The Growth of Menthols, 1933 to 1977" described Kool's growth phase from 1963-1977. The document stated: "Salem had created a vast market potential for menthol, and Kool had retained its taste, while brands in the 'tar derby' had dropped tar and taste. This put Kool in a good position to capitalize on two emerging markets -- the blacks and college-aged marijuana users. The post-war baby boom had, by this time, swelled the population of young and [black]; and Kool was positioned to take advantage. Kool increased its advertising and promotion to blacks and youth, who were both heavy pot users and heavy menthol smokers."

1584. An approximately 1980 Brown & Williamson document entitled "Kool Switching History" tracked demographic data and smoking incidence of people aged sixteen and older.

1585. An approximately 1980 Brown & Williamson document discussed its Project Kestrel: "There would seem to be an opportunity for a brand targeted at advertising literate youth, which rejects the traditional approaches . . . this should be done by addressing real and durable youth values (such as rebellion, or the glamour of danger) rather than passing fashion."

1586. In a 1981 Kool Strategic Brand Plan, Brown & Williamson stated that "Kool

resources will be allocated against geographic and demographic segments which represent the highest opportunity [including] young adult starting smokers" and that the priority "target audiences" to which company resources available to Kool would be devoted were "young adult starting smokers."

1587. A February 4, 1981 Brown & Williamson study showed that Brown & Williamson knew that the level of marketing support for a brand was directly linked to smoking initiation. The document stated that, as "starting is a function of awareness among potential smokers which is directly related to brand size (SOM) and levels of (promotional) support, Viceroy's parent's low starter rate is understandable. Viceroy parent has not been advertised since 1977." The report also stated that "Viceroy Rich Lights' starter rates (15% and 11%) are significantly greater than the category and competitive brands, primarily because the brand was introduced relatively recently and supported by a relatively high spending rate."

1588. P.W. Stebbins, Brown & Williamson, wrote an April 22, 1981 memorandum to Dick Veatch, Brown & Williamson, memorializing a phone conversation with Betty Carr regarding the Donnelly Sampling campaign, in which Carr reported that her Houston store, Tobacco Road, had been inundated with teenagers trying to sell or exchange the cigarettes they received as part of a Barclay promotion.

1589. Kwechansky Marketing Research, Inc., wrote a report dated May 7, 1982 for Imperial Tobacco Limited entitled "Project Plus/Minus," which focused on two age groups, sixteen to eighteen year olds, and nineteen to twenty-four year olds. The report built on Project 16, an earlier study which examined "why do young people start smoking, and how do they feel

about being smokers?" The report stated that a smoker's first brand choice comes from "peer example," and that "Imperial Tobacco's brands have the apparent lions share of this [the youth] market." The study stated that "the age of brand independence and of cessation of peer brand judgment seems to be getting lower," and concluded with an analysis of brand choice of cigarettes by young people. The report stated: "Juvenile dabblings with smoking take place early for reasons of seeking to experiment with forbidden fruit."

1590. An undated Brown & Williamson document entitled "Kool Advertising," apparently drafted in 1983, stated as a "Problem" that "[o]ur campaign does not currently appeal to young adults of all races (<25)," due to "trial growth weakest of all age groups," and "franchise aging rapidly." As the solution, the document recommended that Kool advertising "go for the fantasy" and "go for the cool."

1591. In memorandum apparently drafted in 1983, Brown & Williamson discussed placing advertisements in theaters because these "will be more memorable to a younger audience." Contradictorily, the memorandum also stated that such ads "will probably be misconstrued as an outright approach to underage audience members."

1592. A 1983 internal audit of Brown & Williamson's relationship with Associated Film Productions ("AFP") revealed that AFP was paid \$30,000 quarterly to "place B&W advertising and products in selected new movie productions." The audit listed approximately thirty product placements between 1981 and 1983, including "Nine to Five," "Body Heat," "Never Say Never Again," "Harry & Son," "Tank," "Only When I Laugh," "Sharkey's Machine," and the television program "The A Team." In order to make product placements, AFP kept a second set of books

because "producers normally do not want payments in the form of checks to individuals. They prefer cash, jewelry, cars, etc." AFP had also run the placement of Brown & Williamson commercials in movie theaters until August 1983 for approximately \$100,000 per year, but that function had been turned over to another company.

1593. On April 13, 1983, Brown & Williamson caused a contract to be mailed from Artistry Limited, Pinewood Studios, Iver Health, Bucks, England to Brown & Williamson, which was signed by N.V. Domantay, Vice President of Brand Management, memorializing the agreement to place Barclay outdoor advertising displays in the film "Supergirl." American Tobacco also paid \$30,000 in 1983 to have Eve cigarettes appear in the same film, and in 1984 paid more than \$5,000 and supplied props to have Lucky Strike appear in "Beverly Hills Cop."

1594. A letter dated April 28, 1983, from Sylvester Stallone recorded his promise to smoke Brown & Williamson cigarettes in five upcoming movies in exchange for \$500,000. (Stallone later asserted that this letter is a forgery.)

1595. A June 14, 1983 letter from AFP on behalf of Brown & Williamson to Sylvester Stallone provided further details regarding the use of Brown & Williamson's tobacco products in his next five scheduled motion pictures.

1596. Brown & Williamson Internal Correspondence dated September 17, 1983 stated that RCA had offered its Record Club facility to Kool for 50% off regular price.

1597. H.T. Hughes, Brown & Williamson, wrote a letter dated September 16, 1983 to P.R. Hill, BATCo, and copied to G.E. Lajti and John Powell, responding to Hill's requests for "general socio-economic information on the domestic U.S. cigarette market" and information to

fill "data gaps for the years 1972-1981." Hughes attached a document which, under the heading "Age," listed data for those "Under 16" and "16 to 25."

1598. An October 1983 document entitled "Market Dynamics" reported research conducted by Brown & Williamson to determine trends in starting and switching. The document stated that "[s]tarters are concentrated in the youngest age groups," and documented this with a table of smokers age sixteen to twenty-five, identifying these smokers as 15.2% of former smokers and 34.0% of starters. The document further stated that "Kool's ability to attract starters has been because of high development among young smokers," and provided a table of "Kool Starters: Male smokers 16-25" with data from 1979 to 1982. Concluding that "starters are concentrated in the younger age groups" and "starters are influenced by their peer group," the document recommended that, "to increase Kool's share of starters, it will be necessary to increase Kool's share among young smokers."

1599. An October 1983 Brown & Williamson document entitled "Switching Overview" examined several brands to determine which ones were "attracting starters," or "attracting switchers" and were "losing due to switching-out," and concluded that "Marlboro is the only male brand attracting starters." As to female brands, "[Virginia] Slims, Eve and Satin are attracting starters."

1600. A 1984 BATCo Competitor Report entitled "Tobacco Strategy Review Team: Philip Morris, Inc.," detailed BATCo's perception of market trends and competition. The report stated: "The young, urban, trend setting smoker will remain the focus and prime target group for Philip Morris brands. That this segment constitutes only a small percentage of the total market is

less important than the fact that they represent the future and reflect the aspirations of other smokers."

1601. A 1984 Imperial Tobacco Limited document produced from the files of BATCo stated: "'PROBLEM' For much of the last 20 years, the positive net effect of population growth, usage growth, industry growth, share growth, productivity improvements and, therefore, profit growth has camouflaged the reality that Canadian cigarette smokers are increasingly less enchanted with being smokers and the underlying trends suggest that . . . fewer and fewer Canadians will smoke in the future. CURRENT SITUATION 1. A projection of current trends and a continuation of current policies by ITL [Imperial Tobacco Limited], the industry and various anti-smoking forces may, in the short-term, severely jeopardize our profit-making potential and, in the long term, (30-50 years), virtually wipe us off the map. 2. Although we have historically done things which have had an influence on the size of the industry, these efforts have not been co-ordinated, planned and fully integrated into our 'normal' activities. 3. Something's got to change." Among other "Potential Areas of Investigation/Activity" are "5. Starters/Potential Starters - Expand industry volume via maximization of starting - relevant products. 6. Starters/Potential Starters - Expand industry volume via maximization of starting - attitude change. 7. 'Quitters'/'Potential Quitters' - Expand industry volume via minimization of quitting - relevant products. 8. 'Quitters'/'Potential Quitters' - Expand industry volume via minimization of quitting - attitude change."

1602. A January 1984 report prepared by Market Facts Inc. for Brown & Williamson stated that "By age group, incidence among 16-25 year olds rose" and that "[f]irst time starters

are a great deal younger, and smoke considerably less than the other categories of smokers."

1603. A July 9, 1984 Imperial Tobacco Limited document entitled "Proceedings of the Smoking Behaviour-Marketing Conference, Montreal, Quebec, July 9th-12th, 1984, Session 1" distributed to many people including BATCo's Dr. L.C.F. Blackman; Tilford Riehl, Division Head, Product Development, Brown & Williamson; Andy Mellman, Marketing, Brown & Williamson; Michael Brennan, Scientific Advisory Board, Center For Tobacco Research; and C.I. (Ian) Ayers, Research Manager, BATCo. The report stated "[o]ur future business depends on the size of [the] starter population," and asked, "Can we develop models of how smoking careers unfold?" The document indicated that Wayne Knox, Marketing Manager, Imperial Tobacco Ltd, had "pointed out that the failure to develop new smokers may have more detrimental impact on the industry in future than losses due to quitting."

1604. A March 6, 1985 Brown & Williamson document entitled "Kool 1985/1986 issues" stated that "Kool must aggressively seek to re-establish itself among young adults with aggressive programs" such as music events and outdoor advertising.

1605. An April 19, 1985 internal Brown & Williamson memorandum from Lawrence E. Gravely, research Operations Manager, Marketing and Research Department, to Betty A. Sproule, Research, Development and Engineering, regarding "ARE STARTERS YOUNG OR OLD?" stated: "This is in response to your question of April 18, 1985. This data comes from the 1984 Brand Switcher . . . Starters are: 50.8% [aged] 16-25."

1606. A July 9, 1985 Brown & Williamson document entitled "Beta M National Theoretical Media Plan," recommended placing advertising in Ms. magazine "because of its

special editorial directed to young women. Ms. magazine ranks high with women smokers age 18-34." It further recommended placing advertising in Rolling Stone, Record, and Spin, all described as "youth targeted music books."

1607. An undated document produced by BATCo, apparently drafted between 1987 to 1989, discussed Project Saturn, wherein Imperial Tobacco explored adding flavors including "berry," "maple," "spearmint," and "vanilla" to cigarettes. Focus group testing of these cigarettes focused on the participants' "experience as beginning smokers." A summary of the focus group findings described an "experimental phase – 9-12 years old" which included smoking out of curiosity, desire for social acceptance, and to revolt against authority, and an "adoption phase – 14-16 years old - high school" which included smoking to follow role models in order to avoid rejection by peers, to revolt against authority, and as a right of passage. The document noted that smokers "tend to stay with" the brand adopted between ages 14-16.

1608. An internal 1990 document entitled "Resolve Brand Marketing Strategies" stated that Brown & Williamson's market weaknesses are among starters and switchers, largely due to Brown & Williamson's "failure to meet needs of young smokers" and stated that Kool needs to "focus on young adults."

1609. BAT General Marketing Policies dated January 1, 1991, stated that "overall BAT strategy will be market specific and multi-brand but within each major market major effort behind one brand aimed at starters/young adults."

1610. A memorandum dated December 18, 1991, from Imperial Tobacco to Brown & Williamson attached the Imperial Tobacco "Project Viking Study (Wave 1, 1986 and Wave 2,

1988)" that studied smokers and non-smokers as young as fifteen in Canada. The memorandum described the repercussions of public knowledge of the Project Viking study in Canada in 1990, and discussed how to answer problematic questions if the studies became public knowledge in another country.

1611. A November 1993 report entitled "The Psychology of Significant Moments and Peak Experiences in Cigarette Smoking, The Motivations and Semiological of Smoking" was written by Hugh Baines Research for BATCo. The report stated: "Children's reasons for experimenting with smoking: Children start to experiment with smoking for a variety of reasons. Observing adults smoking, children from a very early age often substitute objects as 'pretend cigarettes' in play, mimicking the actions adults make when smoking."

1612. Invoices from Campbell Mithun & Esty, an advertising and marketing communications firm, show that in 1994 Brown & Williamson placed Kool advertisements in magazines with a substantial youth readership, such as Playboy and Sports Illustrated.

1613. A 1995 document entitled "Econometric Analyses of the Kool Brand Family and Newport Brand Family With Recommendations" included data on the birth rates of teenagers, including both "white birth rates" of "17, 19, 26 and 27 year olds," and the "non-white birth rates" of "13, 16, 17, 18, 21 and 26 year olds."

1614. Tim Rutter, Creative Alliance, sent to Robert John Dunham, Kool Brand Manager, Brown & Williamson, a January 11, 1995 document entitled "Growing the Kool Franchise" which included "initial, topline ideas for enhancing the growth of Kool." Rutter stated that "[t]he Kool franchise continues to age, attracting fewer and fewer new customers each year."

Suggestions for "growth" include vending machines – long recognized as a means of youth access to cigarettes– which dispense half-packs and band promotions.

1615. A letter dated October 10, 1995 from Nicholas G. Brookes, Brown & Williamson Chairman and Chief Executive Officer, to Hilary Barton, BATCo., enclosed "briefing notes" including one entitled "B&W's Strategic Vision." The notes stated that much of Brown & Williamson's revenue was earned from brands that were vulnerable to price-cutting by more profitable companies: Brown & Williamson's declining United States market mix was 42% full revenue and 58% discount (brands such as GPC and Misty) while the market in general was 70% full revenue and 30% discount. Accordingly, in 1995 Brown & Williamson's strategic vision was to generate "sustainable long-term growth through increased penetration of young adult smokers (Kool, Lucky Strike)."

1616. A 1996 Brown & Williamson document regarding Kool stated that "Young Adult Smokers (YAS) represent approximately 11% of total smokers in the U.S." and that "[b]uilding a strong position in the YAS segment is critical to achieving long-term sustainable growth in the U.S. market." The document further stated that Brown & Williamson "continues to significantly underperform" in this important segment.

1617. In the "Project Look Overview Brief" dated October 1, 1996, Nick Wilkerson, Director of Market Strategy and Development for Brown & Williamson, discussed "Kool's shortfalls in image attributes [among] . . . Young Adult Smokers." The document indicated that Project Look aimed to "return Kool to its heritage by making the brand relevant over time to male smokers aged 21-30" by sponsoring race events and by the promotion of sports and music

events.

1618. Nancy Spriggs of media relations for Brown & Williamson sent an InterOffice Memorandum dated April 4, 1997, regarding the "Indy Winner Ad" which stated that "to get more 'national' exposure, the best opportunity appears to be Sports Illustrated." Sports Illustrated has both a high percentage and a high total number of readers under eighteen years old.

1619. In 1995, Brown & Williamson employees attended regular meetings at BAT Centre of the Brand Group which consisted of brand managers and marketing executives for all BAT operating companies, according to the testimony of Sharon Smith, Director of Creative Services for Brown & Williamson, in her February 28, 2002 deposition in this case. At these meetings, Brown & Williamson and all the sister operating companies shared brand advertising campaigns, product development, packaging research, and their marketing research learning and experiences. Although Brown & Williamson claims it does not market to persons under age twenty-one or perform market research using persons under age twenty-one, BAT's global policy is that it markets and conducts market research on persons age 18 above. The Brand Group meetings result in Brown & Williamson presently receiving market research that was conducted on persons at least as young as 18-20 years old from sister operating companies.

1620. A May 30, 1997 BATCo document entitled "Lucky Strike – Strategic Development of Get Lucky Campaign" produced from the files of Brown & Williamson demonstrates that Brown & Williamson is in fact reviewing marketing research performed by BAT among smokers under twenty-one. The document discussed Lucky Strike's "[e]xtremely successful results . . . achieved in two . . . key test markets," and indicated that the principle

target group of the Lucky Strike campaign was male young adult urban smokers aged 18-25 who were "opinion leaders and trendsetters." The document described Lucky Strike as such: "James Dean – an archetypal Luckies smoker," "a legendary marque of teenage rebellion and rock 'n' roll heroes of the 1950's," having a smooth, not harsh smoke, and with ads that communicate an irreverent, light-hearted humor. It stated: "Lucky Strike is one of the greatest 'badges' of all time. . . . Cigarette consumers crave this sort of 'badge'; it is more important to them than anything else. This sort of authenticity is rare and invaluable since it demonstrates to peer groups that you are 'in the know.'"

1621. An August 21, 1997 letter from Wilkerson and Roger DiPasca, also of Brown & Williamson to Sharon Smith and Leslye Thornton, Manager of Marketing Research at Brown & Williamson, included information regarding a "psychographic" study, the focus of which was young men whose personalities were described as "noisy boys #2 and 3."

1622. A Brown & Williamson list dated August 21, 1997, entitled "Kool Oct./Nov. Magazines That Can Run 'B Kool'" includes magazines such as Jet, Rolling Stone and Sports Illustrated, all of which have a high percentage and a high actual number of under-18 readers.

1623. In an April 28, 1998 Business Briefing Video, Wilkerson discussed Project Look, an attempt to reestablish Kool among so-called younger adults. At this time, Kool was by far Brown & Williamson's most profitable brand, representing 20% of Brown & Williamson's volume. In fact, Wilkerson stated that Kool was extremely important to Brown & Williamson and extremely important to BAT. Consequently, when market research showed that Kool received low ratings for "leading brand," "kept up with times," and "for a younger adult," Brown

& Williamson embarked on a repositioning "to stay relevant." Wilkerson stated that the purpose of Project Look – which included the new Kool soft and box packs, the "Team Kool Green" Indy car, and "B Kool" advertising campaign – was to reestablish the Kool brand among younger adults. Wilkerson reported extremely positive marketing research results from consumer focus groups about the B Kool advertising campaign. In fact, Project Look, including the B Kool advertising campaign, was so powerful that Kool had a measurable increase in sales after only a six month test market in Wisconsin between October 1997 and April 1998.

1624. According to the testimony of Sharon Smith, Brown & Williamson engaged in intense market research beginning in 1995 on campaigns emphasizing independence, masculinity, and peer leadership, which led to the creation of revised Kool and Lucky Strike campaigns which were run in 1998. In the April 28, 1998 Business Briefing Video, Wilkerson stated that Brown & Williamson wanted to launch these campaigns at the beginning of 1998, before the marketing environment became more restricted.

1625. An April 6, 1998 Brown & Williamson memorandum entitled "Kool Mix Nights" from Pickett to DiPasca suggested targeting urban twenty-one year old and over smokers with promotions at nightclubs.

1626. In 1999, Brown & Williamson caused to be placed in newspapers and magazines nationwide an advertising campaign for Kool cigarettes captioned "B Kool." Among several treatments, "B Kool" advertising depicted an attractive young woman gazing longingly back at a partially visible man in the foreground holding a lighted cigarette and a pack of Kools.

1627. A 1999 Brown & Williamson internal document entitled "1999 I.M.P. [Integrated

Marketing Partnership] Objectives and Proposals" demonstrated that Brown & Williamson continued to sponsor automobile races.

1628. A document dated June 9, 1999, entitled "Creative Brief - Brand Kool" written by Bates USA for its client Brown & Williamson discussed Bates' plans to market Kool by creating t-shirts featuring Team Kool Green, a premiere racing team. To target the under 30 crowd, Bates USA stated, "T-shirt design should reflect the attitude, tonality of Team KOOL Green and the sport of CART racing: on-the edge, bold, high-speed excitement, 'instinctual passion,' 'kick butt' attitude, 'Gotta-have-it' design." The shirts were to "be sold at race tracks during the races from open vans/trailers (makeshift stores) and vendor kiosks under the grand stands."

1629. In 2000, Brown & Williamson sponsored a Christmas celebration, Light Up Louisville, that started with a gathering at the Brown & Williamson Tobacco Company Tower and continued with a parade that included a Brown & Williamson Frosty the Snowman float. Mark D. Smith, Brown & Williamson's Director of Public Affairs, denied that this event was meant to engender positive attitudes toward its tobacco products among children. Smith stated that such sponsorships would be branded: "if there was any effort to do that, we would have called it the Kool Light Up Louisville or the GPC Light Up Louisville." This testimony acknowledges that B&W sees event sponsorship as an important way to develop positive brand association.

1630. At her February 22, 2002 deposition in this case, Sharon Smith testified that Brown & Williamson received Imperial Tobacco market research showing the success of Players' Indy car sponsorship, information which motivated Brown & Williamson to embark on Kool's

recent Indy car sponsorship. Smith further testified that Brown & Williamson chose the Indy car CART sponsorship for Kool in order to convey that Kool was a modern, high quality brand for men. Smith also testified that the Indy car CART races attracted "a very young crowd, with 53 percent of the audience being in the 21 to 35 age bracket." Smith confirmed that CART racing news is carried in several car and sport magazines with substantial readership among youth aged 12-17.

1631. In her June 20, 2002 deposition in this case, Susan Ivey, President and Chief Executive Officer of Brown & Williamson, testified that youth smoking is driven by, as well as peers and parents, "issues facing youth; rebellion and wanting to rebel."

1632. An undated document produced by Brown & Williamson entitled "Model of Brand Choice of Starters" includes data on 16-25 year olds, derived from a "Switching Study Waves 24-30."

(e) Internal Documents and Other Evidence Establish That R.J. Reynolds Knew That Its Above-Referenced Statements About Youth Marketing Were False When Made

1633. R.J. Reynolds obtained, at its request, a proposal dated March 14, 1958, from George MacGovern, William Esty Company, to study high school students' attitudes toward cigarette smoking.

1634. A document written by William Esty Company, Inc. entitled "Summary of Findings" of "The Youth Research Institute Study Regarding Cigarette Smoking Among 8,112 High School and College Students in 82 Cities Throughout the United States, October – November, 1958," dated December 1958, was produced from R.J. Reynolds's files. The document included information regarding smoking incidence, smoking volume, and brand

preferences of 3,052 high school students, 58% of which were smokers, and 5,060 college students, 73% of which were smokers. Both the high school and the college categories were further broken down into "freshman-sophomore" and "junior-senior" classes.

1635. A December 1959 document written by William Esty Company, Inc., entitled "Summary of Findings" of "The Youth Research Institute Study Regarding Cigarette Smoking Among 7,521 High School and College Students in 80 Cities Throughout the United States, October – November, 1959," included information regarding smoking incidence, smoking volume, and brand preferences of 2,701 high school students, 56% of which were smokers, and 4,820 college students, 75% of which were smokers.

1636. A lengthy report written by the William Esty Company, Inc. entitled "Summary of Findings" of "National Studies of Trends in Cigarette Smoking and Brand Preference Base Period Study – January, 1964" dated February 1964 included information on smoking incidence, smoking volume, and brand preferences for 8,863 families who were on the National Family Opinion panel. Information was tabulated for smokers as young as sixteen.

1637. A March 12, 1964 letter from Sugg to William S. Smith of the Tobacco Institute Advertising Committee attached the February 1964 Study (above), stating: "We [R.J. Reynolds] put a similar study in the field about February 10 . . . This and later studies will help us in evaluating changes in incidence of smoking, volume of smoking, and brand switching resulting from the report of the Surgeon General's committee and subsequent developments. . . . The most interesting finding in the study is the great strength of WINSTON among young smokers, the brand having its highest preference share with teen-agers, its next highest with young adults, and

its lowest popularity with smokers 50 years of age and older."

1638. As late as 1966, R.J. Reynolds ran advertisements for its cigarette products during the television shows "The Beverly Hillbillies" and "The Flintstones," which was described in R.J. Reynolds marketing documents as an "adult comedy." In 1966, the Advertising Code Administrator, Robert B. Meyner, Administrator for the Cigarette Advertising Code, promulgated a rule that cigarettes could not be advertised during television shows for which over 45% of the viewing audience was under twenty-one. In response, R.J. Reynolds withdrew its sponsorship of "The Beverly Hillbillies" and changed its contractual requirements to require of radio and television stations that cigarette ads would be run only in adult time slots.

1639. In a April 9, 1968 memorandum entitled "Teenage and Adult Smoking Attitudes," T.P. Haller, Marketing and Research Department at R.J. Reynolds, recommended that R.J. Reynolds needed semi-annual studies of teenagers (both smokers and non-smokers) in order to "forecast future requirements in leaf buying, plant facilities, manpower, etc." Among other benefits, Haller stated that the study "will put light on the very vital teenage sector of the market."

1640. In a September 19, 1969 draft document entitled "Proposal of a New, Consumer-Oriented Business Strategy for R.J. Reynolds Tobacco Company," Claude E. Teague, Assistant Director of Research at R.J. Reynolds, analyzed the behavior of the "pre-smoker," Teague's term for a person who had not yet begun to smoke, most often a teenager. In his analysis, Teague stated that "the propensity of a pre-smoker to begin to smoke cigarettes is largely determined, on the positive side, by the gratifications he expects to receive. These are

largely social and emotional gratifications which may be offset by health anxieties and changes in the social acceptability of smoking."

1641. During the 1970s, R.J. Reynolds gathered and interpreted data on the smoking habits of fourteen to seventeen year olds from the National Family Opinion survey results. Such National Family Opinion data could be used to determine how underage smokers perceived certain aspects of certain brands. At his May 13, 2002 deposition in this case, Donald Tredennick, Manager of Marketing Research at R.J. Reynolds, testified that during the 1970s he could use information from publicly available sources about people over 18 who smoke to determine why people under 18 started smoking. Tredennick further testified that, in the mid-1970s, R.J. Reynolds became aware by using various consumer research methods that their "share of market among younger people [was] much lower than it had to be in order to maximize [their] volume."

1642. At an April 7, 1971 meeting between R.J. Reynolds's Marketing Research Department and the William Esty Company, R.J. Reynolds decided to include counting of smokers age 13 and under and profiling of 14-20 year olds in future National Family Opinion surveys.

1643. A July 2, 1971 letter from William Esty Company to Jerry Clawson, R.J. Reynolds's Marketing Research Department, reported, as requested by R.J. Reynolds, preliminary findings regarding "smoking incidence and preference shares, by age, among those aged 14 to 20 responding to the new questionnaire" during the National Family Opinion survey. The letter concluded, "[F]inally, Jerry, you expressed interest in learning the number of cigarette smokers

13 or younger found in the sample. There were 14 such smokers [out of sample of 1,850 respondents], thirteen aged 13 and one aged 12."

1644. A November 29, 1971 report issued by R.J. Reynolds's Marketing Research Department, entitled "Marketing Research Report on NFO [National Family Opinion] Profiles for Camel Regular and Filter Cigarettes," concluded that "there are indications of progress in expanding our franchise among younger adult smokers." Attached to this report was a chart entitled "Younger Smokers - Ages 14-20."

1645. Claude Teague, wrote a April 14, 1972 R.J. Reynolds "Research Planning Memorandum on the Nature of the Tobacco Business and the Crucial Role of Nicotine Therein." Of smoking initiation, Teague wrote that a smoker "appears to start to smoke for purely psychological reasons -- to emulate a valued image, to conform, to experiment, to defy, to be daring, to have something to do with his hands, and the like. Only after experiencing smoking for some period of time do the physiological 'satisfactions' and habituation become apparent and needed. Indeed, the first smoking experiences are often unpleasant until a tolerance for nicotine has been developed."

1646. A September 26, 1972 memorandum entitled "Share of Smokers: By Age - Top Ten Brand Items" from Joseph H. Sherrill, Director of Marketing Research at R.J. Reynolds, to William S. Smith, Tobacco Institute Advertising Committee, included tables tracking brand share among teenagers aged fourteen and up which included April 1972 data. Sherrill stated that "Marlboro King and Kool King have significantly higher shares among younger smokers than among the population in general."

1647. In an October 25, 1972 letter to Robert A. Rechholtz, R.J. Reynolds Vice President and Marketing Director, Beverly Walker of Universal Pictures solicited the use of contemporary Winston and Camel cigarette radio advertisements for placement in the film "American Graffiti." Walker stated that "[t]he value of this type of subliminal advertising is known and accepted by now. It certainly seems an excellent means of having your products identified with the warmest aspects of American life, to a captive audience at 'prime' time."

1648. A December 18, 1972 memorandum by A.P. Ritchy, R.J. Reynolds, recommended "conducting the second phase of research to determine if the concept of a fruit wine flavored cigarette is viable among young adult smokers (18-35)." The memorandum stated: "Competitive brands, e.g. Marlboro and Kool, have exhibited exceptional strength in the under 35 age group, especially in the 14-24 age group. R.J. Reynolds brands do not generally skew toward the younger socio-economic groups, and a product strategically targeted at this group would complement our current product line."

1649. A February 2, 1973 R.J. Reynolds research planning memorandum entitled "Some Thoughts About New Brands of Cigarettes for the Youth Market," authored by Teague, was written at a time when R.J. Reynolds was facing a dramatic decline in market share due to Marlboro's tremendous success in attracting new teenage smokers. Teague addressed the significance of the underage market:

At the outset it should be said that we are presently, and I believe unfairly, constrained from directly promoting cigarettes to the youth market; that is, to those in the approximately twenty-one year old and under group. Statistics show, however, that large, perhaps even increasing, numbers in that group are becoming smokers each year, despite bans on promotion of cigarettes to them. If this

be so, there is certainly nothing immoral or unethical about our Company attempting to attract those smokers to our products. We should not in any way influence non-smokers to start smoking; rather we should simply recognize that many or most of the '21 and under' group will inevitably become smokers, and offer them an opportunity to use our brands. Realistically, if our Company is to survive and prosper, over the long term, we must get our share of the youth market. In my opinion this will require new brands tailored to the youth market Thus we need new brands designed to be particularly attractive to the young smoker, while ideally at the same time being appealing to all smokers. Several things will go to make up any such new "youth" brands What image? and What quality? Perhaps these questions may best be approached by consideration of factors influencing pre-smokers to try smoking, learn to smoke and become confirmed smokers.

1650. In the same memo, Teague examined the physical and physiological factors affecting the decision to begin smoking, and discussed "factors influencing pre-smokers to try smoking, learn to smoke and become confirmed smokers," and stated that teenagers apparently "start to smoke for purely psychological reasons-to emulate a valued image, to conform, to experiment, to defy, to be daring, to have something to do with his hands, and the like." Teague added that beginning smokers may not like the physical effects of smoking at first, but after smoking for some period of time, the "physical and psychological habit patterns are firmly established and become self-perpetuating."

1651. John McCain of the William Esty advertising firm sent a March 8, 1973 letter to Jack Watson of R.J. Reynolds concerning National Family Opinion preference share data for fourteen to twenty year old Marlboro and Winston smokers. McCain wrote that "[m]any manufacturers have 'studied' the 14-20 market in hopes of uncovering the 'secret' of the instant popularity some brands enjoy Creating a 'fad' in this market can be a great bonanza. To

date, success, if it comes, has often been a function of luck than of prior marketing perception."

1652. An April 12, 1973 R.J. Reynolds marketing group memorandum credited Marlboro's appealing advertising for its growing market share, particularly among young smokers: "The Reynolds marketing group feels that the favorable share trend for Marlboro as compared to Winston is due almost entirely to the fact that Marlboro has hit upon a highly successful advertising copy approach. . . . Marlboro's ability to gain market share while Winston is losing market share, should in my judgment, be the primary concern of Reynolds in the cigarette field. . . . In my opinion some way must be found to sharply reverse the present market share trend on Winston vs. Marlboro if Reynolds is to retain its preeminent position in the cigarette field. It was said that young smokers are smoking Marlboros two-to-one over Winstons. This is an alarming statistic for Winston."

1653. A May 4, 1973 proposal entitled, "Meet the Turk" was presented to R.J. Reynolds management to "expose management to the opportunity to aggressively position Camel Filter against the young adult market (male)." The proposal stated that males aged 14-34 "represent approximately 35% of 85 mm NFF [non-filter full flavor] smokers."

1654. The November 1973 R.J. Reynolds Winston Box Marketing Plan recommended increasing marketing efforts to support the Winston box franchise because "[b]oth Winston and Marlboro enjoy their strongest franchise among the under 25 year old smoker and especially the young male smoker" and "[w]hile only 7.2% of all adult smokers (18 and over) smoke a cigarette in a Box, 24.4% of those are 14-20 yrs."

1655. A December 4, 1973 interoffice memorandum entitled "Cigarette Concept to

Assure R.J. Reynolds a Larger Segment of the Youth Market" from Frank G. Colby, Associate Director of Scientific Information at R.J. Reynolds, to R.A. Bleyins stated "that to succeed in the youth market," the company should "develop a new R.J. Reynolds youth-appeal brand" that "delivered more 'enjoyment' or 'kicks'." The memorandum stated: "it would be easy to develop, within a relatively few weeks, these new youth-appeal cigarettes for market testing for which the following advertising claims could be unequivocally proven: They will deliver more flavor, more enjoyment, and more puffs for the money than any large selling cigarette on the market, or for that matter, than any other cigarette now on the market."

1656. A December 5, 1973 R.J. Reynolds study entitled "Salem 'Ripe' 'n' Ready' Campaign Evaluation - Final," included a profile of black smokers aged 14-20. The study discussed the 'Salem 'Ripe 'n' Ready' campaign, which was designed to increase Salem's market among black smokers but which was eventually terminated because it "failed to achieve its objective."

1657. In 1974, Donald Tredennick, Manager of Consumer Research for R.J. Reynolds, was directed by a supervisor to determine what caused smokers to select their first brand of cigarettes. In response to this direction, Tredennick sent a April 3, 1974 memorandum to F. Hudnall Christopher, Director of Marketing Research for R.J. Reynolds. Using publicly available sources, and consumer surveys of people over 18, Tredennick found that "most smokers begin smoking regularly and select a usual brand at or before the age of 18." Tredennick's memorandum further stated: "Iff a person is going to smoke cigarettes, he generally starts during his teens, primarily to conform with a close friend or friends, to give himself greater confidence

in a stress situation, or to avail himself or [sic] the physical enjoyment smoking offers The main causes of initial brand selection; i.e., the influence of friends, the user image a brand projects and differentiated product characteristics, are logically related to the reasons a young person begins to smoke." A table entitled "Age Started Smoking," which included a category for "12 & Under," was appended to this memorandum.

1658. A February 28, 1974 Interoffice Memorandum from A.H. Laurene, Director at R.J. Reynolds, to Murray Senkus, Director of Research for R.J. Reynolds, and Claude Teague, with the subject "New Product Proposals Which Would Require Some Research," indicated that "a low tar cigarette ('tar' range of VANTAGE and below) with good Marlboro character might be a winner in the youth market and in the elder Marlboro smokers' market." The memorandum proposed research and development of a "Camel Filter cigarette with increased free nicotine level and more Camel than Winston taste."

1659. In a March 15, 1974 letter to National Family Opinion, R.J. Reynolds requested that National Family Opinion continue to question 14-17 year olds as well as eighteen year olds when conducting consumer surveys of smokers.

1660. On June 5, 1974, Teague met with R.J. Reynolds's internal marketing staff and representatives from outside advertising agency Tatham-Laird & Kudner, Inc. to discuss cigarettes designed for the beginning smoker. The "Conference Report" from this meeting identified R.J. Reynolds's developments in the area of creating a "Cigarette Designed for Beginning Smokers," stating: "This cigarette would be low in irritation and possibly contain an added flavor to make it easier for those who have never smoked before to acquire the taste for it

more quickly. It would not necessarily be low in tar and nicotine content. The taste would be somewhat bland; there would be minimal aftertaste/buildup – which would tend to cut down on the 'motorman's glove' morning-after mouth taste The idea is based on the fact that smoking to the initiate is a fairly traumatic experience." The memo's conclusion that "[t]he brand could not, however, be positioned against youth," appears to concern only whether express targeting would be appropriate given the clear impetus in this memorandum of developing a brand for teenage smoking initiation, and R.J. Reynolds's knowledge that such initiation occurs overwhelmingly before age 18.

1661. R.J. Reynolds mailed a September 24, 1974 letter and attachments regarding "Salem Back-Up Advertising and Creative Development Settlement" to A.M. Allen, of the William Esty Company, regarding a review of Salem's advertising strategy. The letter indicated that R.J. Reynolds was interested in "creating a Brand 'personality' that is specifically suited to the aspirations and lifestyles of . . . current smokers." It further explained that "This Brand 'personality' positioning will also provide, as a secondary benefit, an image which will improve Salem's attractiveness to . . . the majority of young adult smokers entering the cigarette market for the first time."

1662. A September 30, 1974 R.J. Reynolds document entitled "1975 Marketing Plans Presentation" (also referred to as "The Hilton Head Report") stated: "In 1950, this young adult market, the 14-24 age group, represented 21% of the population. . . . they will represent 27% of the population in 1975. They represent tomorrow's cigarette business. As this 14-24 age group matures, they will account for a key share of the total cigarette volume – for at least the next 25

years." The presentation discussed the importance of youth smokers in reestablishing R.J. Reynolds's share of marketing growth and set the marketing strategy that would be implemented to gain market share in the youth market.

1663. In a November 26, 1974 memorandum entitled "R.J. Reynolds Tobacco Company Domestic Operating Goals, R.J. Reynolds stated its "[p]rimary goal in 1975 and ensuing years is to reestablish R.J. Reynolds's share of growth in the domestic cigarette industry." Increasing the young adult franchise was crucial to reestablishing R.J. Reynolds's growth because the "14-24 age group in 1960 was 21% of population; in 1975 [it] will be 27% . . . [and a]s they mature, will account for key share of cigarette volume for next 25 years. Winston has 14% of this franchise, while Marlboro has 33% – SALEM has 9% – Kool has 17%." The memorandum indicated that R.J. Reynolds "will direct advertising appeal to this young adult group without alienating the brand's current franchise."

1664. A memorandum from J.F. Hind, R.J. Reynolds employee, to Charles Tucker, R.J. Reynolds President of Marketing, dated January 23, 1975, stated that for Camel Filter to sustain long-term growth, "the brand [Camel Filter] must increase its share penetration among the 14-24 age group . . . which represent tomorrow's cigarette business." The memorandum further stated: "Our attached recommendation to expand nationally the successfully tested 'Meet the Turk' ad campaign and new Marlboro-type blend is another step to meet our marketing objective: To increase our young adult franchise. To ensure increased and longer-term growth for CAMEL FILTER, the brand must increase its share penetration among the 14-24 age group which have a new set of more liberal values and which represent tomorrow's cigarette business."

1665. A document entitled "Smokers Screening – October 1975 Profile (14-17)" conducted by National Family Opinion for R.J. Reynolds included cigarette brand preference information for respondents aged fourteen to seventeen. A similar document, "Smokers Screening – April 1976 Profile (14-17)" contained 1976 brand preference information for respondents aged fourteen to seventeen.

1666. J.M. Wallace, R.J. Reynolds Marketing Research Department employee, wrote a October 30, 1975 Product Research Report entitled "Share of Smokers by Age Group" which "is the annual update of trends in share of smokers by age. Information is drawn from the April NFO [National Family Opinion] panels." Wallace stated: "Marlboro's traditional source of strength – younger smokers, though still sizeable, is eroding at a rapid rate. Between April, 1974 and April, 1975, Marlboro King showed a five share point loss in the 14-17 year-old age group and since 1973, Marlboro King's share of market has declined by 8 share points in this segment Winston King did not capitalize on Marlboro's decline, but exhibited some softness itself - especially in the younger age groups (14-17 and 21-24) This growth for Salem occurred at a time when Kool King declined substantially in the 14-17 market and the 18-24 market. Thus, while Salem is beginning to show strength in the younger markets, Kool is showing major signs of weakness in the same markets."

1667. R.J. Reynolds annually engaged in ten year planning forecasts, as shown by the R.J. Reynolds March 15, 1976 document entitled "Planning Assumptions and Forecast for the Period 1977-1986 for R.J. Reynolds Tobacco Company." This document stated: "The present large number of people in the 18 to 35 year old age group represents the greatest opportunity for

long-term cigarette sales growth. Young people will continue to become smokers at or above the present rate during the projection period. The brands which these beginning smokers accept and use will become the dominant trends in future years. Evidence is now available to indicate that the fourteen-to-eighteen year old group is an increasing segment of the smoking population. R.J. Reynolds tobacco must soon establish a successful new brand in this market if our position in the industry is to be maintained over the long term."

1668. An R.J. Reynolds May 4, 1976 document discussed a "HI-FI category" which it defined as 14 mg. of tar and lower, including brands such as Marlboro Lights and Winston Lights. This document included data which tracked "HI-FI" smokers from age fourteen to fifty plus.

1669. Tim Key wrote an August 12, 1976 memorandum to T.L. Ogburn entitled "Share of Smokers by Age Group" which contained "an annual update of trends." The memorandum stated that Winston King's share among 14-17 year olds "is off two points for the second year in a row. Current share is 9%. Conversely, Marlboro King's share among this age group which had shown losses during the past three years was up one point. Current share is 32%." Key stated "Salem King appears to have retained most of the share gain seen during 1975 among 14-17 year olds. Current share of 9% is only one point off the previous years [sic] high of 10%. Kool King has a larger share at 15% and was even with the previous year." Under "Corporate Comparisons," the memorandum stated: "Philip Morris posted a 4 point gain among 14-17 year old smokers (R.J. Reynolds and Brown & Williamson each lost 2 points)."

1670. A October 8, 1976 R.J. Reynolds Marketing Department Report entitled

"Marketing Department Key Issues – Position Papers," observed that adult smokers under age twenty-five would show a major shift in brand preference" away from Marlboro and that the decline in Marlboro's share of this market would continue to open the market for another dominant brand to emerge from peer group pressures. The basis for this projection was the National Family Opinion study, which showed that "Marlboro's acceptance among 14-17 year olds had dropped from 39% to 32%. This pattern has been repeated by three brands with Pall Mall peaking in 1969, total Winston in 1970, and total Marlboro should peak share in 1978." This report further predicted a "reduction in [the] number of new smokers" due to stronger enforcement of "laws prohibiting sale of cigarettes to teenagers," which it stated would have a negative impact on R.J. Reynolds's sales and profits.

1671. In a August 24, 1979 document, Kay Brubaker, an R.J. Reynolds employee, in response to the request of G.A. Mason, another R.J. Reynolds employee, regarding "whether the young adult market (35 years of age and younger) is responsive to . . . promotions," asserted that "the young adult market is most responsive, in terms of participation, to retail sampling, disco sampling, and BIGIF's in convenience stores."

1672. A November 11, 1979 letter from Dr. Vernen J. Knott, affiliated with the Royal Ottawa Hospital, proposed a five year study of both children as young as eight and adults to see whether some people are predisposed to be smokers due to intrinsic psychophysiological factors. Knott hypothesized that, since "smoking relieves stress," it might have "clinical utility for psychiatric patients." The letter was submitted to the Canadian Manufacturers Tobacco Council, whose members included Imperial Tobacco, R.J. Reynolds-MacDonalds, Rothmans, and Benson

& Hedges.

1673. In a March 26, 1980 document, D.A. Crawford, Director of R&D for R.J. Reynolds-MacDonald Inc. discussed the study proposed by Knott. Crawford indicated his agreement with Guy-Paul Massicotte, R.J. Reynolds-Macdonald, that there would not be any reaction from an anti-smoking group in Canada, and stated that Dr. Knott would avoid using terms such as drug and dependency and would delete any reference to marketing.

1674. In 1980, the R.J. Reynolds Marketing Development Department issued a series of internal reports entitled "Teenage Smokers (14-17) and New Adult Smokers and Quitters." The reports contained the R.J. Reynolds Marketing Research Department's analysis of the data provided by the National Family Opinion regarding the smoking behavior of 14-17 year-old smokers.

1675. One of the series of "Teenage Smokers (14-17) and New Adult Smokers and Quitters" reports, dated February 1, 1980, and written by Stephen R. Perry, R.J. Reynolds Marketing Research Department, discussed "franchise aging"— the process of young smokers entering the smoking population as older smokers (often fifty plus) leave the market, either because they quit or they die. The report stated: "For example, in 1979 approximately one million smokers became 18 years old while approximately 450,00 older smokers left the market. The extent that each company is affected by this process is determined by the age skew of its franchise." This report demonstrated R.J. Reynolds's knowledge that smoking initiation and brand choice most often occurs in the teenage years: "[m]any adult smokers have already formed consistent smoking patterns by the time they enter the market at age 18."

1676. Another in the series of "Teenage Smokers (14-17) and New Adult Smokers and Quitters" reports was dated February 4, 1980, written by Frydman to J.B Stuart. This report stated: "In the last five years, share of cigarette volume of the 14-17 year-olds declined by about 36%, from 3.14% in 1975 to 2.00% in 1979 The share of companies of the 14-17 year-olds has changed very significantly in the last five years: R.J. Reynolds's share declined from 29.9% in 1975 to 21.3% in 1979. A large part of the share loss can be traced to Winston."

1677. Another in the series of "Teenage Smokers (14-17) and New Adult Smokers and Quitters" reports was dated July 9, 1980, and sent from Kay Duffy, R.J. Reynolds employee, to Frydman, Jerry R. Moore, R.J. Reynolds Marketing Development Department, and S.R. Perry. This report included the claim that the gathering of youth data is "a natural by-product of the tracking of adult smokers" which was conducted "in order to improve our ability to forecast future trends. . . [and was] not designed to be used as a tool for developing marketing strategies for this population group." The memorandum stated that while R.J. Reynolds was losing share among young smokers, Philip Morris was gaining share and that "18-24 year olds are more active than any other age group in terms of quitters and new smokers."

1678. Duffy wrote L.W. Hall Jr., Vice President of Brands Marketing at R.J. Reynolds, an October 23, 1980 memorandum entitled "Younger Adult Smokers." Duffy stated "[s]moking behavior of 14-17 year olds is analyzed . . . to improve our ability to forecast future trends." The memorandum stated: "Philip Morris continues to gain share among the 14-17 year old age group Philip Morris's large share among 18 year olds has made it the only company to realize substantial share gains due to the aging process"; "RJ Reynolds Tobacco Company continues to

lose share due to . . . a decrease in new smokers and an increase in quitters"; Lorillard and American were also are losing share; Liggett Group, Inc. & Myers had an unchanged share; and "Brown and Williamson Tobacco Corporation gain[s] share from . . . new smokers and quitters" although, like American, its share among 14-17 year olds had declined.

1679. An internal July 22, 1980 R.J. Reynolds memorandum from G.H. (Jerry) Long, R.J. Reynolds Executive Vice President, to Edward A. Horrigan, Jr., R.J. Reynolds's CEO, entitled "MDD [Marketing Development Department] Report on Teenage Smokers (14-17)," stated: "Attached is a MDD report covering the aforementioned subject. Last January, a report was issued on this subject that indicated that Philip Morris had a total share of 59 among 14-17 year old smokers, and specifically, Marlboro had a 52 share. This latest report indicates that Philip Morris's corporate share has increased by about 4 points; however, Marlboro remains the same at 52." This memorandum stated that "R.J. Reynolds continues to gradually decline," and concluded, "[H]opefully, our various planned activities that will be implemented this fall will aid in some way in reducing or correcting these trends."

1680. According to a August 20, 1980 memorandum to Dick Nordine from Diane Burrows, R.J. Reynolds Marketing Development Department researcher, R.J. Reynolds decided to no longer market on college campuses in or shortly after August 1980, based on data that indicated that the rate of smoking among college males was less than half that of out-of-school young adults.

1681. On September 12, 1980, in preparation for a meeting with Wall Street security analysts, Gerald Long, Executive Vice President of R.J. Reynolds, wrote to L.W. Hall, Jr., Vice

President of Brands Marketing, Ellen N. Monahan, Marketing Development Department, Greg Novak, and H.E. Osman seeking "any information that you could specifically provide that would compare prime prospect age information for the various WINSTON, SALEM, and CAMEL brand styles versus primary competitive brand styles" in order to counter the perception that R.J. Reynolds's "brands appeal only to older smokers."

1682. As the prior documents demonstrate, R.J. Reynolds's substantial market research performed during the 1970s revealed that Philip Morris's Marlboro brand was dominating the youth market. By the early 1980s, according to internal documents and the testimony of Diane S. Burrows on June 27, 2001, R.J. Reynolds knew through research that the combination of so few smokers between eighteen and twenty-four choosing to smoke R.J. Reynolds brands and the tendency of the those smokers to be loyal to their first brand of choice would ultimately lead to market share declines for R.J. Reynolds if their brands continued to be unpopular with young people. R.J. Reynolds knew, as it stated in its "1975 Marketing Plans Presentation," that teenage smokers were "tomorrow's cigarette business," and accounted for "a key share of the total cigarette volume -- for at least the next 25 years."

1683. R.J. Reynolds also knew at this time that it was unlikely to be able to win the teenage market with a new, unknown brand, and that it would be wiser for R.J. Reynolds to revise an already known brand's image to make it more appealing to teenagers. As a September 29, 1980 R.J. Reynolds memorandum, "Younger Adult Smoker Opportunity Analysis – New Brands," stated about young smokers: "Socially insecure, they gain reinforcement by smoking the brands their friends are smoking, just like they copy their friends dress, hair style, and other

conspicuous things. To smoke a brand no one has heard of – which all new brand names are - - brings one the risk of ostracism. It's simply not the 'in' thing to do. If this theory is correct, it would be extremely difficult to achieve success with a new brand name who's primary thrust was against younger adult smokers. Certainly, there have been many attempts – 'Maverick,' 'Zack,' 'Luke,' and 'Redford,' come immediately to mind – and all have failed My thinking is that to maximize our success among this important group, we should place our efforts and our resources behind our established brand names, keeping them young and contemporary through advertising, promotion, and line extension strategies and executions."

1684. In the early 1980's, as Burrows testified on June 27, 2001, R.J. Reynolds did not have a successful young "adult" smoker brand that could challenge Marlboro's dominance of the younger smoker market. However, Burrows testified that Camel was identified through focus groups research performed in 1985 as the only R.J. Reynolds brand that younger smokers did not hate. In fact, R.J. Reynolds had tried already, unsuccessfully, to transform Camel into a youth brand with its 1973 to 1978 campaign "Meet the Turk." R.J. Reynolds thus chose to use the already established brand name of Camel and add the appeal of the Joe Camel cartoon character, in order to best target teenagers.

1685. Between 1979 and 1982, R.J. Reynolds CEO Edward A. Horrigan, Jr initiated the Joe Camel campaign by asking his marketing department to look at the French "Funny Camel" campaign and see if R.J. Reynolds could reinvigorate Camel with a similar approach. According to Horrigan, people at the company were excited about the idea. The French "Funny Camel" campaign had been very effective with young people in France. As a February 7, 1984

memorandum from Dana Blackmar to Rick McReynolds about the "French Camel Filter Ad" stated: "I think the French advertisement for Camel filters is a smash. It would work equally well, if not better, for Camel regular. It's about as young as you can get, and aims right at the young adult smoker Camel needs to attract." Horrigan testified that despite R.J. Reynolds's knowledge that the French "Funny Camel" was "as young as you can get," R.J. Reynolds did not specifically look at the impact the campaign might have on underage smokers.

1686. R.J. Reynolds did not reconsider its Joe Camel campaign, even though an R.J. Reynolds's executive explicitly raised the issue of Joe Camel's appeal to youth. A March 5, 1985 memorandum from J.S. Carpenter, R.J. Reynolds Tobacco International, to John Winebrenner, R.J. Reynolds about the "Funny French Camel Design" described R.J. Reynolds's use of the "French camel," the precursor to Joe Camel, to attract young smokers in France. Carpenter wrote: "I must caution that this design was used in France during a time when an attempt was being made to 'youthen' the brand; the entire advertising and promotional campaign used at the time was geared to this end, with the 'funny' Camel playing a key role in the advertising. Indeed the design did help to achieve this end."

1687. In 1988, R.J. Reynolds launched the Joe Camel campaign with the "Camel 75th Birthday Celebration," a "year of activity celebrating Camel's 75th birthday in a fun, irreverent manner." R.J. Reynolds conducted print, OOH [out of home, i.e., billboard] and POS [point-of-sale, i.e., retail] advertising with birthday themes in addition to issuing "2 for 1" and money off coupons. T-shirts, lighters, posters and mugs were also given away, either through mail order or at events. This marketing push was effective in attracting teenagers and, as a result of the

campaign, the number of teenage smokers who smoked Camel cigarettes rose dramatically. At the same time as the Camel share of the teenage smoker market began increasing, the percentage of teenagers who were smokers also began to increase after a prolonged period of decline. The number of adolescents who become daily smokers before the age of eighteen increased by 73% from 1988 (708,000) to 1996 (1.226 million) – rising from nearly 2,000 to more than 3,000 persons under the age of 18 years who become daily smokers each day. If the rate of smoking initiation among young people had held constant since 1988, then 1.492 million fewer persons under the age of 18 years would have become daily smokers by 1996. Between 1976 and 1984, the percentage of high school seniors who had smoked during the previous thirty days declined by 24.5%, whereas between 1991 and 1998 that percentage increased by 24%.

1688. Overall, Joe Camel cartoon advertisements were far more successful at marketing Camel to children than to adults. Camel's share of the youth market increased from 0.5% in 1988 to 32.8% in 1991, representing sales estimated at \$476 million per year. The following documents, beginning in 1981, demonstrate R.J. Reynolds's continuing research on teenagers, marketing to teenagers, and the development of the Joe Camel campaign.

1689. In 1981, R.J. Reynolds developed a system called "AGEMIX," which R.J. Reynolds used to determine smoking incidence and rates across demographic categories of sex and age. A 1981 R.J. Reynolds document entitled "RJ Reynolds Cigarette Industry Volume Forecasting System" stated that the AGEMIX system allowed R.J. Reynolds to track the incidence and rates of smokers by sex and age. In a July 8, 1982 letter to Data Resources, Inc., regarding the development of AGEMIX, Diane S. Burrows wrote that AGEMIX allowed R.J.

Reynolds to determine smoking incidence and smoking rates for individuals aged 12 and over, as the AGEMIX system included age breakdowns of 12 to 17, 18 to 24, etc. Burrows stated that, "[s]ince few people start smoking after age 24, we will assume that incidence remains fixed as a group ages past 24."

1690. A May 4, 1981 letter from Warren Cowan, President, of the Beverly Hills public relations firm Rogers & Cowan, Inc., to Gerald Long, Executive Vice President of R.J. Reynolds, discussed Rogers & Cowan's past and continuing efforts on behalf of Reynolds to feature smoking favorably "in a prominent way" in movies, in celebrities' public appearances, on television, and in other arenas. Cowan stated, "[a]mong the films that met our criteria in which we were able to place products were: 'The Jazz Singer' with Neil Diamond. 'Backroads' with Sally Field. 'The Cannonball Run' with Burt Reynolds, Farah Fawcett and Roger Moore. 'Only When I Laugh' with Marsha Mason. 'Pennies From Heaven' with Steve Martin. 'Blowout' with John Travolta. 'Rich and Famous' with Candice Bergen and Jacqueline Bisset, and many, many others." The letter also discussed Paul Newman smoking R.J. Reynolds products in a recent spot on "Good Morning America" and placing stories about Mikhail Baryshnikov smoking four packs of cigarettes per day as part of his routine.

1691. Midge Barnes, R.J. Reynolds Marketing Development Department, in a December 8, 1981 letter to E.N. Monahan entitled "Aging 18 Year Old Smokers Into NFO [National Family Opinion] Panel Data" recommended "aging [counting] all known under 18 year old smokers into the NFO Panel Data at age 18 and classifying them as 'Continuing Smokers,' with only those smokers new to the business classified as 'new' smokers."

1692. A March 22, 1982 document entitled "Export Family Strategy" discussed marketing strategy for Export cigarettes, R.J. Reynolds's leading Canadian brand.

It is hypothesized that very young starter smokers choose Export 'A' because it provides them with an instant badge of masculinity, appeals to their rebellious nature and establishes their position amongst their peers. . . . It is at this transition point (ages 18-24) that Export 'A' is declining in its ability to hold the young adult males as they go through the maturing process, due to its out-dated irrelevant image. . . . Since we cannot direct our media or our creative to starter smokers, the optimal target group is young adult smokers between the ages of 18-24. . . . The key influencing factor to initial brand selection amongst new smokers appears to be conformity to what their friends smoke. . . . While Export "A" appears to be chosen as a first brand, based on this key influencing factor, we must strive for peer group acceptability throughout the maturing process, for all the Export brands.

1693. In a September 20, 1982 memorandum, Burrows stated that, "if a man has never smoked by age 18, the odds are three-to-one he never will. By age 21, the odds are twenty-to-one."

1694. In a September 27, 1982 memorandum entitled "NBER Models of Price Sensitivity by Age/Sex" to Jerry R. Moore, R.J. Reynolds Marketing Development Department, Burrows summarized National Bureau of Economic Research findings on the relative price sensitivity of age and sex groups, including data on "teens 12-17." She discussed the NBER findings that "teenagers and younger adult males are highly price sensitive," and that "price affects incidence; rate per day is virtually unchanged," noting that the NBER findings were "highly consistent" with internal R.J. Reynolds findings. Burrows' memorandum further stated: "The loss of younger adult males and teenagers is more important to the long term, drying up the supply of new smokers to replace the old. This is not a fixed loss to the industry: its importance

increases with time. In ten years, increased rate per day would have been expected to raise this group's consumption by more than 50%." On October 6, 1982, Burrows sent this memorandum to L.W. Hall, Jr. Vice President of R.J. Reynolds Marketing Department.

1695. A 1983 document discussing YAX, R.J. Reynolds's code term for "young adult smoker brand" stated: "Premise: A brand that helps provide the younger adult smoker with peace of mind and a sense of well-being by representing appealing forms of escape. . . . Positioning hypothesis . . . A brand that stands for the joy, closeness, and sense of belonging of male/female relationships via intimate and/or romantic situations will be perceived by younger adult smokers as contributing to their sense of well-being. A brand that stands for financial security via achievable wealth-oriented imagery will be perceived by young adults as contributing to their sense of well-being A brand that stands for good times and belonging via fun, group situations will be perceived by younger adult smokers as contributing to their sense of well-being."

1696. Burrows testified at her June 27, 2001 deposition that in the 1983-1984 time-frame, she recommended that R.J. Reynolds needed to increase its popularity among young adult smokers, possibly through development of a new brand.

1697. By at least 1983, and until at least 1986, R.J. Reynolds ran advertisements for Salem and Camel in Moviegoer magazine, a monthly publication distributed at selected movie theaters. In addition to the fact that access to the magazine and, therefore, the cigarette advertisements contained therein, are virtually uncontrolled, Moviegoer is published by the 13-30 Corporation, which goes by this name to reflect the age range of its target audience.

1698. A June 29, 1983 report entitled "13-30 Corporation/R.J. Reynolds" summarized a meeting "to develop concepts/options for media vehicles for use in and around convenience stores which will satisfy the needs of convenience store customers, owners, and RJR Company." The report described convenience stores ("youth oriented," "hang-out" and "video games"), convenience store customers ("younger" "children with them "late at night-younger" and "kids on Friday night buying evening 6-packs"), and convenience store purchasers ("young, single" and "people with less spending money"). The report listed "beginning ideas," to be implemented at convenience stores to encourage purchase of R.J. Reynolds's cigarette brands, including "activity booklet appealing to young people – things to do," "develop a bike rack for kids with bikes – create ad space," "hook-up cigarettes with other youth purchases," "have a video game token given away with purchase," "create a music channel that is close-circuited into C.S. [convenience store] that is on-target to youth market," and "some kind of game or contest . . . via proof of purchase – with a weekly winner. Could be video game – high school sports quiz." The report considered ways to connect R.J. Reynolds marketing to dating: "facilitate boy meets girl at C.S.," and "how to legitimize the boy/girl encounter – e.g., movie schedules."

1699. In 1984, Frances V. Creighton, of the R.J. Reynolds Marketing Research Department, prepared an "Established Brand Research Proposal: Camel Younger Adult Campaign Focus Groups" which sought to "qualitatively explore three creative strategies/campaigns for their appeal, relevance, and fit among target 18-20 year old smokers." In order to compete with Marlboro, "the Brand is currently developing new advertising creative targeted to younger adult male smokers. Three advertising strategies are being pursued . . . :

Freedom and Independence, Interactive Sociability, Pack Graphics."

1700. Richard Nordine, wrote a 1984 R.J. Reynolds "Strategic Research Report Market Overview and Key Trends/Issues," which provided a "broad overview of the cigarette market" covering the preceding 30 years. Nordine stated: "[T]here are clear differences between growing and declining brands. Those which have younger adult profiles are growing and those which show older are declining (except for Generics)."

1701. On February 2, 1984, R.J. Harden of the R.J. Reynolds Marketing Development Department wrote a memorandum to A.M. Curry entitled "A Perspective on Appealing to Younger Adult Smokers" which stated: "A cigarette brand's (and the associated company's) long-term vitality is strongly influenced by its ability to attract young adult smokers."

1702. In a February 29, 1984 memorandum entitled "Younger Adult Smokers: Strategies and Opportunities," Diane S. Burrows stated:

Younger adult smokers have been the critical factor in the growth and decline of every major brand and company over the last 50 years. They will continue to be just as important to brands/companies in the future for two simple reasons: 1) The renewal of the market stems almost entirely from 18-year old smokers. No more than 5% of smokers start after age 24; 2) The brand loyalty of 18-year old smokers far outweighs any tendency to switch with age. . . . Marlboro and Newport, the only true younger adult growth brands in the market, have no need for switching gains. All of their volume growth can be traced to younger adult smokers and the movement of the 18-year olds which they have previously attracted into older age brackets, where they pay a consumption dividend of up to 30%. A strategy which appealed to older smokers would not pay this dividend. . . . Younger adult smokers are the only source of replacement smokers. Repeated government studies have shown that: Less than one-third of smokers (31%) start after age 18. Thus, today's younger adult smoking behavior will largely determine the trend of Industry volume

over the next several decades. If younger adults turn away from smoking, the Industry must decline, just as a population which does not give birth will eventually dwindle.

1703. In the same document, Burrows emphasized the importance of contemporizing marketing intended to target young smokers: "The major younger adult brands have been succeeded by a brand which was positioned to be different from its predecessor and better "in-touch" with the younger adult smokers of the time. . . . All of these successful brands have stressed positive product messages." Finally, Burrows indicated that young smokers were critical to RJ Reynolds Tobacco Company's long-term performance and profitability: "[RJR] should make a substantial long-term commitment of manpower and money dedicated to younger adult smoker programs. An unusually strong commitment from Executive management will be necessary, since major volume payoffs may lag several years behind the implementation of a successful younger adult smoker strategy."

1704. In an April 13, 1984 R.J. Reynolds letter, Nordine stated that "[i]t is relatively easy for a brand to retain eighteen-year-old smokers once it has attracted them. . . . Conversely, it is very difficult to attract a smoker that has already been won over by a different brand."

1705. In a document dated June 14, 1984, entitled "New Brands and Strategic Research Report: Project XG Qualitative Exploratory III MDD Topline Perspective, "P.S. Cohen, an R.J. Reynolds employee stated: "In recognition of the importance of younger adult smokers to R.J. Reynolds growth, Project Planning has been asked to develop a brand which appeals to the image and peer acceptance wants of 18-24 year old smokers." This effort was code-named Project XG. Cohen further stated that, to appeal to the younger adult smoker, visuals would convey a sense

of: "adventure/controllable risk, independence/freedom, honesty/straightforwardness, in control/'street-smart'/urban personality, spontaneity/lack of inhibitions."

1706. A July 9, 1984 R.J. Reynolds document entitled "Project XG Brand Review" described Project XG as R.J. Reynolds's effort to "[d]evelop a Brand to appeal to younger adult smokers," and "[r]eplace Marlboro as the key brand among younger adult smokers (18-24)."

1707. In a July 16, 1984 memorandum entitled "Thoughts on Younger Adult Smoker Study" Nordine remarked that "[i]n the past, trends with the younger adult sector have led to growth brands" and therefore R.J. Reynolds must "understand the driving motives of younger adults and the way they express these motives in their lifestyle." Nordine listed as an issue to explore: "What 'rules of thumb' are there are [sic] developing effective younger adult smoker marketing programs?"

1708. A September 17, 1984 memorandum Burrows discussed Nordine's previously-stated hypothesis that, if schools permitted smoking, the effect would be to discourage student smoking. In response to Nordine's hypothesis, Burrows stated that prohibition of smoking may feed into teenagers' rebelliousness and actually encourage them to smoke as a form of rebellion and as a way to get positive support from other rebels in their peer group.

1709. Charles A. Martin, of R.J. Reynolds Marketing Development Department, in a October 18, 1984 document entitled "Younger Adult Smoker Perceptions of Camel," discussed how young adult's perceptions of Camel can be used to increase market share, especially among FUBYAS (First Usual Brand Younger Adult Smokers). In summary, Martin stated, "Camel is excellently positioned to appeal to FUBYAS who want to project themselves as being different

from the crowd because they seek the ultimate in adventure and excitement. It supports this image through its heritage and mystique. Camel is a brand which differentiates itself from the vast majority of other cigarettes in the market. Camel projects an image of virility that is heroic and 'larger than life.' And, as it is a brand that's not for everyone, Camel is exciting to smoke."

1710. A 1985 R.J. Reynolds Report entitled "Are Younger Adult Smokers Important?" contained an extensive discussion of young smokers, breaking young adult smokers into two distinct classes: FUBYAS, "those younger adults who are already smokers but have reached the stage of choosing a first usual brand;" and "switchers, younger adult smokers who have already chosen a First Usual Brand." The premise for this report is that "FUBYAS, not switchers, have driven the success of the brands of this century. They are leading indicators of growth and decline." This report examined the marketing strategy of Jack Daniels ("the Marlboro of bourbons") and Budweiser as brands that successfully repositioned themselves as leaders in the youth market, noting marketing techniques used by Jack Daniels that were then utilized in the Joe Camel campaign. As one example, the report stated that, to target the younger "adult" audience, "JD [Jack Daniels] puts more 'pages' in Rolling Stone than any other book." The report also commended Jack Daniels for its use of promotional merchandise: "JD is an example of a viable positioning, executed in a 'non-standard' but authentic and unpretentious way, which reaches YA consumers, not only through their books, but by converting YAs into walking billboards. They started with a good idea and stuck to it." Finally, the report concludes with a breakdown of the "social groups" that make up young "adults," analyzing their values and attitudes as well as their likelihood to be smokers. The groups discussed clearly describe junior

high and high school students more accurately than adults: "Rockers," "Party Parties," "Punkers," "Discos," and "Burnouts." The report concluded that these groups "are large, loosely knit BUT HIGHLY LABELED sub-societies FROM WHICH FUBYAS DRAW THEIR IDENTITY, i.e., BY BELONGING to the group and using the group TO BE DIFFERENT from other younger adults." Although authorship of this report is unknown, a copy produced by R.J. Reynolds included Burrows' name in marginalia.

1711. A February 1, 1985 focus group report written by Charles A. Martin entitled "Established Brand Research Proposal: Camel Younger Adult Smoker Focus Group," stated that "[d]ue to the growing importance of younger adult smokers, Camel has developed a campaign which is directed solely towards this group." Martin summarized the findings of the focus group: "Overall, many of the male and female respondents held negative user and product perceptions of CAMEL. In their minds, Camel was thought to be a non-filtered, harsh product smoked by older males. However, exposure to the younger adult ads appear to somewhat improve these attitudes. This improvement stemmed primarily from two characteristics: humor, and relevancy to younger adult smokers. Certain ads did convey the message that Camel was acceptable choice for younger adult smokers." Martin also discussed focus group reactions to advertisements featuring the "French Camel," which was the precursor to the Joe Camel campaign: "These ads were well-received due to the fun/humor aspect of the cartoons. More than any other theme, the "French Camels" appeared to attract the respondents' attention. The main drawbacks of these executions were that: one, they may be appealing to an even younger age group, and two, there was some confusion as to the meaning behind them (some focus group members were

hard-pressed to explain the purpose of the ads)."

1712. In a January 28, 1986 document entitled "State of the Brand Report" (regarding Camel) Frances V. Creighton stated that "the trend among 18-24 year old males has exhibited growth throughout 1985 reflecting targeting promotional activities throughout most of the year . . . [S]hare among the 18-24 old male smokers is currently 5.75, up +1.3% versus November a year ago."

1713. C.D. Greene, of R.J. Reynolds Camel Brand Team, wrote a February 11, 1986 memorandum entitled "Results of the Camel 1985 SDS Analysis." The purpose of this memo was to allow the Camel Brand Team to "gain a better understanding of Camel's target of male 18-24 year old smokers," who were described as being "driven by a desire for social success."

1714. In a March 12, 1986 memorandum entitled "CAMEL New Advertising Campaign Development," labeled "R.J. Reynolds Secret," R.T. Caufield, of the R.J. Reynolds Brand Group, emphasized appealing advertising as key to reposition Camel for younger smokers: "It is recommended that creative efforts reflect a focus on developing advertising which is highly relevant, appealing and motivational to 18-24 male smokers. This recommendation is based on consideration of the marketplace dynamics which are perpetuating Marlboro's growth (i.e., brand loyalty and peer influence), and which strongly suggest that repositioning Camel as the relevant brand choice for younger adult smokers will be critical to generating sustained volume growth." The report indicated that "advertising will be developed with the objective of convincing target smokers that by selecting Camel as their usual brand they will project an image that will enhance their acceptance among their peers."

1715. A document entitled "Youth Target 1987" prepared by The Creative Research Group for R.J. Reynolds Macdonald Inc, R.J. Reynolds's Canadian subsidiary, expressly studied smoking habits, lifestyles, and value systems of smokers aged 15 and older.

1716. A June 8, 1987 document indicated that R. J. Reynolds conducted a Canadian study allocating 17% of the interviews to fifteen to seventeen year olds.

1717. In an August 14, 1987 report entitled "Camel General Market Campaign Focus Group Report – Tulsa" Creighton discussed focus group reactions to "French Camel" advertisements: "The 'Camel, Never Ordinary' [advertisement], which portrays the 'French Camel' in various social situations, came perhaps the closest to meeting the objectives of Camel's advertising strategy." Creighton further stated that this advertisement was popular with the 18-24 age group.

1718. In an August 21, 1987 R.J. Reynolds memorandum entitled "Camel's 75th Birthday Plan" discussing promotional ideas for the Camel's 75th anniversary campaign (during which R.J. Reynolds launched Joe Camel), Y.M. Jones stated that the promotional ideas "must appeal to the 18-24 year old mindset," and included an example of a "party animal" magazine pop-up insert.

1719. A R.J. Reynolds August 24, 1987 interoffice memorandum discussed the Camel's 75th anniversary campaign. Proposals ranged from having children or grandchildren of employees and retirees send in "renderings of Old Joe" to be featured in Caravan, to arranging for an R.J. Reynolds night at Barnum & Bailey Circus during which an employee would play ringmaster and "the leading act would be, you guessed it, the camels, all wearing Camel 75

blankets."

1720. S.L. Snyder, of R.J. Reynolds Marketing Development Department, wrote an August 27, 1987 "Promotion Research Report – Camel 75th Birthday Promotion Ideas" discussing promotional ideas targeted to 18-34 year olds smokers for the Camel's 75th anniversary campaign which was run in 1988.

1721. R.J. Reynolds tested the promotions, advertisements, and other types of marketing that it intended to run for the Camel's 75th anniversary campaign in which it launched Joe Camel. For example, an October 7, 1987 document entitled "Marketing Research Proposal: Camel 75th Birthday Hispanic Focus Groups" written by W.R. Penick, R.J. Reynolds discussed focus groups including groups composed only of males aged eighteen to twenty-four.

1722. Another example of R.J. Reynolds's testing of its Camel's 75th anniversary campaign marketing occurs in a November 1987 report prepared by Creighton entitled "Marketing Research Proposal - Camel Project Big Brand Perceptions Tracking Study." The report indicated that the market testing would "track target smoker perceptions, attitudes and advertising awareness before and after the launch of Camel's 75th Birthday advertising campaign" among a target audience of eighteen to thirty-four year old males.

1723. R.J. Reynolds's testing of its Camel's 75th anniversary campaign marketing found a positive response among the young male smokers it hoped to target. In a December 4, 1987 memorandum Creighton and W.R. Penick to E.J. Fackelman, highlighted key findings and conclusions from the communications testing of Camel's 75th birthday advertising among male smokers aged 18-34: "75th birthday advertising generated a very strong and positive emotional

response among 18-34 year old male target smokers."

1724. In an October 14, 1987 memorandum entitled "Content Outline/Camel 75th Birthday Video," C.A. Williams, indicated that Camel's target was young males who currently smoked Marlboro. Williams wrote that the Camel's 75th anniversary campaign was intended to make "Camel more relevant to our target smokers 18-34 male non-menthol competitive smokers (primarily Marlboro)."

1725. An October 15, 1987 memorandum entitled "Project LF Potential Year 1 Marketing Strategy" from J.H. Miller to Emily C. Etzel and Ann E. Biswell, and copied to H.T. William C. Parks, Ph.D, regarded "introducing Project LF in 13 priority regions Project LF is wider circumference non-menthol cigarette targeted at younger adult male smoker (primarily 13-24 year old male Marlboro smokers) [W]e are assuming \$100MM for a national launch and \$70MM for a regional introduction." Attached was a table showing "Priority Regions" and "Remaining Regions" by brand, Marlboro, Winston and Camel. This document was contained in a file entitled "Youth Target."

1726. A 1988 R.J. Reynolds document entitled "Strategic Overview" discussed Marlboro's success, indicating that, in order to meet the goal of increasing R.J. Reynolds's market share, the company must target the "young adult" market. To meet this goal, "[s]everal research programs have been completed to increase understanding of YAS."

1727. A 1988 R.J. Reynolds document entitled "Younger Adult Smokers Importance" stated that "younger adult smokers are virtually the only source of replacement smokers. Only 31% of smokers start after age 18" and "as a result of brand loyalty and the aging process,

strength among younger adult smokers ultimately yields growth in the older age brackets."

1728. In a 1988 document entitled "Situation Analysis – YAS," R.J. Reynolds stated that "Since the cigarette market is extremely brand loyal, the brand that is chosen as FUB [First Usual Brand] has a long-term strategic edge."

1729. A 1988 R.J. Reynolds document listed "Key Business Issues," among them "increasing price sensitivity" and the resulting need to "[b]uild YAS share for [long]-term growth."

1730. A 1988 R.J. Reynolds document entitled "Camel Advertising Development White Paper" provided the roadmap for R.J. Reynolds's repositioning of Camel with the Joe Camel campaign to take away Marlboro's majority share of the young smoker market. The document showed R.J. Reynolds's awareness that smoking initiation and brand choice occur in the teenage years: "only about 5% of all smokers start smoking after the age of 24 . . . [and] the majority of younger adult smokers will stay loyal to their first brand choice." It stated that the strength of Marlboro Camel's current image, conveyed through advertising, was too "old" and indicated that advertising using younger models and themes that appealed to youth (independence, rebelliousness, etc.) could "contemporize" or youthen Camel's image:

Camel's current existing market image (i.e., brand perceptions, not advertising perceptions) includes aspects that are highly consistent with the wants of younger adult males . . . including: independence, doesn't follow crowd, lives by own set of rules, stands up for beliefs, not afraid to express individuality, enjoys being different, won't settle for ordinary The major weakness in Camel's in-market image is that it is not considered by younger adult smokers to be contemporary, and thus is not relevant. Negative perceptions include: . . . a lot older than me . . . In an attempt to address Camel's weaknesses. . . an alternative campaign

'Share a New Adventure' was developed. This campaign used models that were not as old looking and used more relevant situations to address the brand's 'older' image weaknesses. . . . The advertising will position Camel as an authentic brand for smokers who are admired and respected by their peers because their attitudes and lifestyles distinguish them as individuals who challenge convention and stand tall In order to fully target the younger adult market, Camel must displace Marlboro as the younger adult brand. Simply speaking, Marlboro is the younger adult smoker market Marlboro's key strength relates to peer acceptability and belonging Marlboro is perceived by younger adult smokers as a brand which provides a sense of belonging to the peer group. A variety of research studies including the Segment Description Study, the Marlboro Vulnerability Analysis, in-market perception research, as well as in-depth qualitative all show this The [Camel] advertising should elicit an emotional response to positively motivate target smokers to rethink their brand choice In order to stimulate [youths] to think about brand alternatives, the advertising and brand personality must 'jolt' the target consumer. Since Camel does not have a demonstrably different or unique product (rational) benefit to sell, this jolt needs to be based on an emotional response and is unlikely to be accomplished with advertising which looks conventional or traditional. Studies have shown that the so-called 'hot buttons' for younger adults include some of the following themes: Escape into imagination Excitement/fun is success: Younger adults center their lives on having fun in every way possible and at every time possible. Their definition of success is 'enjoying today' which differentiates them from older smokers.

1731. Joe Camel debuted in 1988 as part of Camel's 75th anniversary campaign. In advertisements that featured the cartoon character Joe Camel, he was often shown doing adult activities, including hanging out at bars, casinos, riding motorcycles or driving cars. Joe Camel was also portrayed as a cool, rebellious, and adventuresome character, all themes with great appeal to teenagers. For example, from about April 1, 1988 through about June 30, 1988, R.J. Reynolds placed an advertisement for Camel cigarettes in various print media, including the

"Sporting News and other Jumbo Jr. Size Magazines." This advertisement was captioned "Get On Track With Camel's 75th Birthday!" and depicted the Joe Camel character in a Formula One-type automobile racing suit, opening a bottle of champagne, with racing cars whizzing by in the background. As Edmund Conger Leary, Senior Vice President of Marketing and President of Sports Marketing for R.J. Reynolds, testified at his May 2, 2002 deposition in this case, R.J. Reynolds conducted research among 18-24 year old smokers about "every aspect" of Joe Camel "for its appeal and relevancy to the target." Leary further testified that R.J. Reynolds understood that "kids would like to be adults."

1732. Joe Camel advertisements were combined with coupons for free Camel cigarettes, R.J. Reynolds's intentional effort to encourage product trial by young people, as R.J. Reynolds knew that coupons were effective means to encourage trial. At her June 27, 2001 deposition, Burrows testified that it is necessary to get a person to try an R.J. Reynolds brand before they will be loyal to it, and that methods to get someone to try an R.J. Reynolds brand include in-store promotions, e.g. free lighters with so many packs purchased, or buy-one-get-one-free promotions. At his May 2, 2002 deposition in this case, Edmund Leary testified that advertising and promotion "can influence the behavior of purchasers" to try a brand, and that R.J. Reynolds uses "advertising and promotion to incent [sic] adult smokers of other brands to try our brands and hopefully to switch." In 1988, R.J. Reynolds placed a multi-page advertisement for Camel cigarettes in various print media, including Sports Illustrated, a magazine with a large youth readership. The advertisement depicted Joe Camel in the foreground, with a beautiful woman sitting on the hood of a convertible automobile in the background. The second page of the

advertisement, captioned "Some have it. Most don't," stated, "You can have it free!" and contained a coupon for a free pack of Camels.

1733. In 1989, R.J. Reynolds placed Joe Camel advertisements in various media as part of "program 900162," which involved "buy one, get one free coupons" and included the following advertisements which included buy one, get one free coupons: (a) An advertisement with the words "Bored? Lonely? Restless? What you need is . . ." featuring the face of a beautiful woman gazing at the reader; (b) Advertisements captioned "Camel Smooth Moves" including "Smooth Move #325 - Foolproof Dating Advice" (which advised "[a]lways break the ice by offering her a Camel") and "Smooth Move #334 - How to impress someone at the beach" (which advised that the reader "[r]un into the water, grab someone and drag her back to shore, as if you've saved her from drowning. The more she screams, the better" and "[a]lways have plenty of Camels ready when the beach party begins,"); and (c) An advertisement captioned "Smooth Move #437 - How to get a FREE pack even if you don't like to redeem coupons."

1734. Creighton prepared a January 27, 1988 "Marketing Research Proposal 'Heroic Camel' Advertising Test" recommending that R.J. Reynolds conduct market research to determine the effectiveness of the "Heroic Camel" advertising campaign, and assure that it is positively received by eighteen to thirty year olds. The "Heroic Camel" campaign showed Joe Camel in a "series of 'heroic' situations drawn from bigger than life fictional characters," including a fighter pilot, a foreign legionnaire, Mr. Hollywood and a detective. These ads were run in 1989.

1735. C. Rashti, wrote a Contact Report recording the February 25, 1988 meeting

between McCann-Erickson and R.J. Reynolds regarding "Camel – High Impact OOH, Second Half 1988 Creative and Project Big Idea Concepts." Participants at this meeting discussed the upcoming 'Heroic Camel' advertising campaign as well as the use of "Camel Cash" [coupons with the appearance of dollar bills] instead of traditional coupons. "Camel Cash" was inserted into packs of Camels and could be redeemed for t-shirts, mugs, jackets, and other promotional items.

1736. A March 1988 Report entitled "Younger Adult Smoker Opportunity" discussed "R.J. Reynolds's most critical strategic need – Younger Adult Smokers." The report stated: "Improved younger adult development is a key corporate priority – Necessary for core brand revitalization (#1 corporate priority) – Lack of younger adults responsible for total company volume trend." It indicated that R.J. Reynolds's "[m]arketing department [was] refocusing efforts against younger adult smokers." The report indicated the importance of unrestricted advertising in reaching these younger smokers: regarding a possible advertising ban, it stated that, "[i]f enacted, advertising ban would severely limit R.J. Reynolds's ability to introduce new brand or attract younger adult smokers." The report stated that "[y]ounger adult smokers drive the growth of two major competitors," – Marlboro and Newport– which were "capturing an ever increasing share of younger adult smokers." Finally, the report explained why young smokers were crucial to the continuing survival of R.J. Reynolds, because teenagers remain loyal to their brand of choice as they age, and because teenagers smoke an increasing volume of cigarettes as they become adults: "Younger adult smokers are the key to future growth for any company or brand for several reasons: (1) Aging explained 75% of SOM [Share of Market] growth. (2) Benefits of

younger adult smokers compound over time as a result of brand loyalty and the increase in rate per day as smokers age." In summary, the report stated, "R.J. Reynolds must begin now to capture younger adult smokers: – Volume decline inevitable without YAS – Potential for future advertising restrictions – Marketing department restructured to address the issue."

1737. An August 1988 report entitled, "Permanent Young Adult OOH (Out of Home) Plan" discussed R.J. Reynolds's OOH marketing ("out of home" primarily refers to billboards and other outdoor advertising) and made recommendations for targeting the younger adult smoker ("YAS") market. The overall plan for R.J. Reynolds's billboard efforts was described as "continuous, high impact visibility in the most YAS-oriented media available." The overall objectives were: "Assure continuous OOH presence for highest potential brands, utilizing locations, units and creative executions that are uniquely and single-mindedly relevant to younger adult smokers." The report recommended placing billboards in the areas most likely to be frequented by young adults, including:

- "Near venues where rock concerts are regularly held.
- Along cruising strips/streets with heavy concentrations of fast food restaurants and convenience stores.
- Near technical colleges, military bases, video game arcades, city basketball courts, motocross tracks, major record stores, etc."

The report stated that, with respect to targeting such areas, "traditional OOH selection parameters do not necessarily apply! Highly 'daily effective circulation' not critical - maybe YAS only in area on weekends - that's OK!"

1738. A September 9, 1988 Resource allocation document stated: "R.J. Reynolds's YAS brands should reach YAS with a dominant promotion voice in 1989, i.e., at least \$48MM should reach General Market YAS."

1739. A 1989 R.J. Reynolds document entitled "Camel Y&R Orientation" discussed the "strategic importance" of younger adult smokers: "YAS are the only source of replacement smokers. Less than one-third of smokers start after age 18." The document further stated, "To stabilize R.J. Reynolds's share of total smokers, it must raise share among 18-20 from 13.8% to 40% ASAP."

1740. A October 27, 1989 document written by L.B. Smith, of the R.J. Reynolds Business Department, requested in-house legal advice concerning cash offers for consumer survey participation to "younger" adult smokers "ages 18-24." The document indicated that "[t]he amount of the offer is intended to make it 'worthwhile' for younger adult smokers to respond" and that R.J. Reynolds did not require age information when respondents called the toll-free number. A copy was also sent to Douglas Weber, R.J. Reynolds's Director of New Products Development and Established Brands.

1741. A September 15, 1989 document entitled "Diez Y Seis Fiesta Event Summary" reported on Camel marketing at the Denver Diez Y Sies Fiesta which included "kiddy rides, vendor booths, and live entertainment on both stages." The document stated: "The Camel booth was the most popular and a constant line existed all day as people waited to play the basketball game. Samplers distributed 275 caps, 480 playing cards, and 596 mugs and prizes. Samplers collected 385 screener cards filled out by those waiting in line. The Camel booth was also the

most visible with its banners and yellow flags clearly standing out in the crowd Camel was definitely the strongest presence at the event. Camel hats could be spotted everywhere throughout the crowd." Other 1989 documents provided summaries of similar events in Corpus Christi and Dallas, Texas. The Dallas event included a midway area with carnival rides for the children: "Camel presence, as a major sponsor, was certainly realized by all those at the event. Twenty-five large banners were hung around the perimeter of the park. The Camel 3-foot inflatable giant pack was situated next to the main stage." A Camel basketball game in a "freestanding booth with banners, flags and giant packs" was located in the midway area with the carnival rides for the children which achieved "maximum brand impact." The documents indicated that 2,000, 5,000, and 28,000 free samples of cigarettes were distributed at these three events.

1742. In A letter dated October 12, 1989, Diane S. Burrows entitled 'Dollar Value of YAS Over Time' provided "estimates (attached) of the value of capturing Young Adult Smokers and holding them over time." The letter calculated the profits that R.J. Reynolds would gain "if an 18 year old adopts an R.J. Reynolds full price brand" for three years (\$1,359), for seven years (\$3,710), for ten years (\$6,148), or for over twenty years (\$18,794). The letter concluded: "Our aggressive Plan calls for gains of about 5.5 share points of smokers 18-20 per year, 1990-93 (about 120,000 smokers per year). Achieving this goal would produce an incremental cash contribution of only about \$442MM during the Plan period (excluding promotion response in other age groups and other side benefits). However, if we hold these YAS for the market average of 7 years, they would be worth over \$2.1 billion in aggregate incremental profit. I certainly

agree with you that this payout should be worth a decent sized investment."

1743. Taylor-Hines, Young & Rubicam, New York, sent a November 27, 1989 memorandum regarding "Camel Creative Exploratory Focus Groups," which summarized Joe Camel's allure as discovered in focus group research: "Of all the executional approaches, 'Leader of the Pack,' was the consistent favorite across all groups. It combined the elements favored in the current campaign – Camel as hero, bright colors, simple yet involving scenarios – but also added a stronger sense of Joe being more involved in the action/adventure. There was also an element of Joe as the rebel."

1744. In January, 1990, R.J. Reynolds marketing documents concerning the test marketing of its new brand Dakota to 18-24 year old so called "Virile" women without college educations or professional careers were leaked to the press, causing a public furor to erupt. A January 1, 1990 R.J. Reynolds document indicated that Philip Morris had informed R.J. Reynolds that Philip Morris had not revealed that the R.J. Reynolds marketing documents "leaked" to the Washington Post were indeed R.J. Reynolds documents: "they [Philip Morris] did not tell the Post reporter that materials cited in the story were theirs [R.J. Reynolds's]."

1745. In a March 30, 1990 letter, L.L. Bender, described the press attention to R.J. Reynolds's Houston test marketing of the Dakota cigarettes to the "Virile Female." Bender stated,

I. LEARNING[:] . . . [e]ven with the tightest possible security, however, we must operate with the knowledge that anything we write, say, or do can become "public knowledge" overnight. . . . Fortunately, focus group learning suggests that exposure to the brands' advertising can quickly reorient brand perceptions/positioning. Surprisingly, focus group learning also

indicates a straightforward "statement" ad or letter from the company would be less effective at reversing negative brand perceptions than advertising. In fact, detailed explanations of our position seemed to surface new issues and fuel the controversy. II. IMPLICATIONS FOR FUTURE [NEW BRAND] INTRODUCTIONS/ CONTROVERSY[:] "Target" definitions should be broad and refer only to competitive brands. Proposals/recommendations that are not accepted should be discarded immediately. Out of date documents should be destroyed also. If anti's, the press, or government officials misrepresent the brand, advertising reflecting correct brand positioning should be run as soon as possible. However, this advertising should not be designed to refute claims directly.

1746. In an April 5, 1990 R.J. Reynolds memorandum entitled, "Young Adult Market Account Grouping" R.G. Warlick, R.J. Reynolds Division Manager, requested that all the sales representatives in Norman, Oklahoma provide him a list of their "Y.A.S. accounts" meaning "[a]ll package action calls [locations which sell cigarettes by the pack rather than the carton, i.e., convenience stores] located across from, adjacent to are [sic] in the general vicinity of the High Schools or College Campus (under 30 years of age)."

1747. In a January 10, 1990 R.J. Reynolds memorandum labeled "VERY IMPORTANT, PLEASE READ CAREFULLY!!!" and sent to sales representatives, J.P. McMahon, R.J. Reynolds Division Manager, stated "I need all of you to study the attached scroll list of monthly accounts in your assignment that are presently doing more than 100 CPW [presumably, cases per week] for purposes of denoting stores that are heavily frequented by young adult shoppers. These stores can be in close proximity to colleges, high schools or areas where there are a large number of young adults frequent the store."

1748. Almost five months later, McMahon sent a May 3, 1990 letter to all sales

representatives to "clarify" the language in his January 10th letter. In it, McMahon stated:

In reviewing my files, I have noticed that I sent you a letter dated January 10th of this year, asking you to identify stores located in close proximity to high school and colleges for placement of our premium items. First of all, looking back on this letter, I realize I was wrong in identifying the specific age group of these young adults. It has always been this company's policy that we do not promote or sell our cigarettes to anyone under the age of 21.

The letter continued:

[I]t was not my intention to recruit or promote smoking with high school or college aged students. I have never asked you to do anything different in gaining sales with this age group, but again I must say I was wrong with my reference to 'high school aged' young adults, and I deeply regret and apologize for this reference. In talking to most of you over the past three weeks, you have told me that you are not placing any special emphasis on stores located close to schools or colleges or that we are not promoting smoking, or even making consumer offers to anyone under the age of 21. We will continue to work with our pack promotions with special emphasis in higher volume C-stores, but we will not place additional emphasis, or additional premium items in any store where there is a large concentration of under 21 shoppers. Again, I must add, it is not my intention nor was it ever to persuade young people to smoke."

1749. A May 4, 1990 R.J. Reynolds report entitled "Camel Brand Promotion Opportunities" discussed a number of promotional items geared directly at "young adult target smokers." The report described the "target smokers" as "approaching adulthood, hence they are sensitive to peer group perceptions regarding their maturity and masculinity [Y]oung adult target smokers are active, sociable and fun loving in nature. Their key interests include girls, cars, music, sports and dancing - all of which can include family and friends and can be

accomplished on a limited budget." The promotional items suggested by this report included blank audio tapes with Camel logo, a Camel Walkman case and other "entertainment-oriented incentives." Other suggestions included the "Camel pocket game," which included chess, checkers, dominoes, or Parcheesi, all using Camel logos, graphics and visuals, or the idea that "Camel can even go so far as to design its own game to reinforce major marketing themes" such as "Camel sliders" in which the object is to slide the "slider" molded to look like Joe across the tabletop and get closest to the target.

1750. An R.J. Reynolds document dated June 21, 1990, entitled "US Cigarette Market in the 1990s" stated that the "majority [of smokers] become regular smokers before age 18."

1751. In a November 28, 1990 memorandum proposing Camel promotion, Edward Battle stated that the objective of "[a] successful promotion effort is to: Develop a targeted promotion concept that:

- Increases trial/retrial/conversion rates among competitive smokers.
- Builds promotion equity.
- Provides a mechanism for measurement results.
- Supports the brand's personality and reinforces brand positioning.
- Provides smokers with a compelling reason to buy CAMEL cigarettes."

1752. In a December 4, 1990 presentation entitled "Camel Advertising Overview," (later made in a slightly shorter form on April 17, 1991), Young & Rubicam reported to R.J. Reynolds that the Joe Camel campaign had "set the stage for an exciting 1991," explaining: "CAMEL is the brand for the 1990s and, wherever CAMEL's message is, it is there in a big way. If a market is

covered, it is covered ubiquitously. If we run a one-shot ad or a local promotion, the execution must be so provocative and unexpected that it transcends its medium."

1753. Joe Camel advertisements run in the 1990s used the same techniques as used with the advertisements run during the Camel 75th anniversary campaign in 1988. The 1990 advertisements continued to portray Joe Camel as cool, rebellious, and adventuresome, showed him engaged in adult activities, and offered "Camel Cash," which could be redeemed for promotional items such as t-shirts, lighters, and mugs. One such advertisement, which R.J. Reynolds placed in various print media in 1992, was captioned "Camel Lights." It depicted Joe Camel as wearing sunglasses, a tee shirt, and blue jeans, with a pack of cigarettes rolled up in his sleeve and a lit cigarette hanging from his mouth, while casually leaning against a convertible automobile.

1754. Three cigarette ads used by R.J. Reynolds in 1996 included offers of Camel Cash. Two showed Joe Camel wearing sunglasses and a leather jacket and offer \$25 savings on Ticketmaster tickets with 100 Camel Cash C-States (in one, Joe says "Wanna see a show?" and in the other, Joe said "Go ahead, it's on me"). The third advertisement showed Joe Camel driving a car, saying "Take a Rockin' Road Trip" and included an offer of \$25 savings on Ticketmaster tickets for "Camel Cash."

1755. By 1992, it was clear that Joe Camel advertising had succeeded in reaching teenagers. A California Department of Health Services report estimated that Camel had achieved 96% of its total penetration among 13-year old teenagers, Marlboro had achieved 82%, and Virginia Slims 69%.

1756. An April 1991 R.J. Reynolds Executive Summary, entitled "Operating in a Restricted Environment," predicted that greater future restrictions on R.J. Reynolds's marketing and advertising were a virtual certainty, and explored ways to continue to market R.J. Reynolds's brands including Camel if such restrictions were implemented. The summary stated that the Joe Camel cartoon campaign was particularly at risk, and suggested that R.J. Reynolds should "begin now to explore ways to transfer old Joe's irreverent, fun-loving personality to other creative properties which do not rely on models or cartoon depictions." The summary also indicated that billboards exposed young people to cigarette advertising: "outdoor advertising continues to bear the brunt of anti-smoker criticism as regards unrestricted exposure to youth, and in fact, it is the medium that we are least able to defend in these terms."

1757. In an October 1991 document entitled "A Qualitative Assessment of Camel Advertising Equity" Ellison Qualitative Research, Inc., summarized for R.J. Reynolds the findings of focus groups of young adult smokers, ages 18 to 34, which were conducted to measure consumer perceptions of the Joe Camel advertising. The study found that

[b]y all indications, the repositioning of the Camel brand seems to be generating a sense of up-graded appeal and relevance among key smoker segments – particularly adult males 18-24. A principal part of the repositioning – the 'Smooth Character' advertising and integrated communications programs – appear to be critical in helping make the recent Camel effort successful.

It is noteworthy that the 18 to 24 year olds mentioned as Camel smokers in 1991 were 15 to 21 years old when the Joe Camel campaign began in 1988.

1758. The market researchers enthusiastically noted the effectiveness of the Joe Camel advertising to allay consumer skepticism and create positive feeling and personal comfort with

the brand: "This point seems particularly noteworthy, since consumers are generally reluctant to overtly admit to being influenced by advertising. Generally speaking – in a focus group environment – whether for cigarettes or for other packaged goods – consumers are inclined either to be critical of advertising and/or deny that it plays any role in their choice of products."

1759. The researchers also stated that the respondents had strong positive responses to the Joe Camel advertisements, and were able to remember them in detail: "The details recalled and the strength of the favorable Camel advertising commentary were considerably beyond what is typically heard in focused groups . . . when awareness of/attitudes toward advertising – in the absence of stimuli – are explored."

1760. On October 18, 1991, Clare M. Smith, R.J. Reynolds Business Information and Analysis, wrote a memorandum to regarding the Ellison Qualitative Research, Inc. entitled "Camel Campaign Equity Focus Group Final Report." In it, Smith summarized the focus group findings, stating that "[o]verall, it appears to be aspirational quality of Joe CAMEL that has fueled the popularity of the post-positioning campaign. Both competitive [Marlboro] male and female smokers commented on Joe CAMEL's ability to "do everything, go anywhere and be anything." Smith also pointed out that focus group respondents were unwilling to see Joe Camel in "ordinary" scenarios, preferring to see him in aspirational situations: "Smokers commented on situations perceived to be inappropriate for Joe CAMEL, including Joe as a "couch potato" or showing Joe Camel working in a blue collar occupation. These activities were perceived as too ordinary for Joe CAMEL as respondents did not want to see Joe CAMEL in situations that they do on a daily basis. Smokers expressed their desire to see Joe CAMEL in fantasy situations . . .

being the center of attention among a group of friends, and always participating in cool activities." Smith recommended, based on this research, that "[f]uture [Joe Camel] campaign development should continue to avoid ordinary/boring activities and continue to focus on exciting and lively situations . . . [and] on variety, humor and surprise."

1761. In a March 16, 1992 letter, Thomas C. Griscom, R.J. Reynolds's Executive Vice President, External Relations, forwarded a compilation of Camel market data including data on twelve to seventeen year olds. This data included "No. [number] of Smokers Underage (12-17) . . . Total Cigarettes Smoked Per Year - Underage . . . Percentage of Total Cigarettes Accounted For by Underage Smoker . . . Camel's Share-of-Market Among Underage Smokers . . . Total Camels Purchased by Underage Smokers [and] Percentage of Camels Bought by Underage Smokers."

1762. A November 1993 Roper Starch report reported on an "Advertising Character and Slogan Survey" conducted with a "national sample of young persons, age 10 to 17 years" to track awareness of the Joe Camel Campaign. R.J. Reynolds released the study to deflect criticism that the Joe Camel campaign was directed at minors.

1763. However, the study found that 86% of the 10 to 17 year olds surveyed recognized Joe Camel. Joe Camel was identified correctly as advertising cigarettes by 95% of the ten to seventeen year olds who claimed awareness of the Joe Camel character. This percentage was higher than the percentage of children who knew that Ronald McDonald advertised McDonald's fast food and within 1% of the number of children who knew that the Keebler elves advertised for cookies. The top two responses of 10 to 17 year olds to the open ended question of "How

would you describe Joe Camel"? were (1) he smokes, and (2) he is "really cool/acts cool/ thinks he's cool."

1764. A 1994 R.J. Reynolds document entitled "Camel Crisis Vision" tracked smokers aged 18 to 34, showing a peak in this market of almost 13% in 1993.

1765. In a February 18, 1994 memorandum, Lyle Smith of the R.J. Reynolds Business Department, transmitted a detailed study entitled "Third Statewide Tobacco, Alcohol and Other Drug Use Survey of New Mexico Children and Youth" and provided a brief summary of the study's key results. The study found that "[t]he percentage of students who have used cigarettes during the past year is up."

1766. An adolescent survey instrument dated November 28, 1995, bearing the watermark "Property of RJRTC" on every page, discussed whether "Adolescents Will Not Be Predisposed to GTC." "GTC" is the in-house code name for R.J. Reynolds's tobacco heated products such as Eclipse. It contained a series of arguments of why an adolescent would be inclined to smoke GTC: "Less concern about the risks associated with smoking (minimize initial physical reaction to smoking). . . . More likely to experiment. . . . Less likely to quit smoking under a perception of lower risk associated with smoking and because smoking is seen as less objectionable among peers. . . . By influencing adult smoking incidence, impact is made on smoking by adolescents through parental example. . . . In fact, parents may be less forceful about their kids [not] smoking if they perceive the new product as having healthier benefits."

1767. From 1995 until at least 1999, marketing agency Long Haymes Carr prepared a series of recommendations for placement of Camel advertisements in magazines and newspapers.

Although these plans specifically refer to Camel's target as twenty-one to twenty-four year olds, the plans include strategies that clearly have great appeal to teenagers. For example, the "Camel 1994 Media Plan" suggested placement of advertisements in magazines including Rolling Stone and Sports Illustrated (both with a high percentage of under-18 readers) and also suggested advertisements to increase awareness of Camel's NASCAR, drag and bike racing programs.

1768. The "Camel Cash 1995 Media Plan" recommended that R.J. Reynolds "heighten Camel's involvement at the Daytona NASCAR event with page insertions in broader appeal sports and/or automotive enthusiast publications."

1769. The "Camel Final 1996 Media Plan" dated December 10, 1996, suggested the "Heavy-up Camel Motorcycle program support during key events in 1996: Daytona, Sturgis, and Laconia.."

1770. [REDACTED]
[REDACTED]

1771. [REDACTED]
[REDACTED]

1772. [REDACTED]
[REDACTED]

1773. [REDACTED]
[REDACTED]

1774. [REDACTED]

[REDACTED]

1775.

[REDACTED]

[REDACTED]

1776.

[REDACTED]

[REDACTED]

1777. A 1996 R.J. Rey discussed repositioning Salem, stating that it was "critical to get into the 18-24 group," and identifying Salem's competitors as Newport and Marlboro Menthol. The summary indicated that Newport marketed to 18 to 24 year olds, but that Salem had not been successful in this age range, and that it was "critical" for Salem to reach this young group of smokers in order to "ensure long term viability."

1778. A 1997 document entitled "Winston National Hispanic Launch" stated as its goal "to try to get Hispanic Marlboro smokers interested in Winston." It discussed "test market tracking" of Hispanic smokers aged eighteen and over who were asked if they had "ever tried," "recently tried," "ever purchased," or "recently purchased" Winston cigarettes, and asked about "proposition awareness" of the "Winston No Bul" marketing campaign.

1779.

[REDACTED]

[REDACTED]

[REDACTED]

13, 2002 deposition, Douglas Weber, Director of Marketing Research, testified that, before the issuance of the 1992 Schroer memorandum which indicated that research would no longer be performed on smokers under twenty-one years of age, "R.J. Reynolds did research on smokers under the age of twenty-one on a regular basis, before 1992."

1781. Despite R.J. Reynolds's supposed post-1992 policy which proscribed marketing to anyone under 21 years of age, R.J. Reynolds made no changes in its marketing efforts after enacting this policy. For example, R.J. Reynolds did not restrict the locations of cigarette vending machines to only age 21-plus venues. When asked about this policy at his June 12, 2002 deposition in this case, CEO Andrew Schindler testified that the policy in fact meant that R.J. Reynolds would not use source data information gathered from research into the smoking preferences of 18-21 year olds. Schindler testified that ceasing to use such research meant that R.J. Reynolds was no longer marketing or "talking to" anyone under age twenty-one.

1782. Schindler further testified that he did not believe that there is any sort of "trickle down" effect of advertising to teenagers, and that R.J. Reynolds's 1992 policy is only meant as a "buffer" between adult smokers and potential underage smokers. According to Schindler's testimony, however, R.J. Reynolds does not know whether it is even possible to create such a "buffer" between legal age and under-age smokers. Schindler testified that R.J. Reynolds has performed no research to determine whether ads can or cannot be targeted to one age group (legal age and up) and not the other (underage).

1783. At his May 2, 2002 deposition in this case, Edmund Leary testified that R.J.

Reynolds has not done any research to ensure that its marketing does not affect youth initiation.

1784. Moreover, R.J. Reynolds made no to changes in its marketing campaigns which were developed prior to 1992 and used focus group research involving 18-20 year olds. R.J. Reynolds did not withdraw or change its "Joe Camel" campaign after its supposed adoption of its 1992 policy, even though Andrew Schindler testified that the target group of this campaign was 18-24 year olds. In addition, R.J. Reynolds has not conducted any research intended to discover what cigarette design features might make cigarettes appealing to children so as to avoid marketing cigarettes with these features, with Schindler testifying that "I do not believe that we should be doing research on kids as they relate to products[.]"

(4) Internal Documents and Other Evidence Establish That Cigarette Company Defendants Are Aware of, and Have Exploited in Their Marketing Efforts, Young People's Desires to Smoke "Popular" and Peer-Approved Brands

1785. Defendants have falsely stated that youth smoking initiation and continuation of youth smoking is due primarily to peer influence, and that marketing does not play any role. For example, a May 24, 1979 letter from Horace R. Kornegay, President of the Tobacco Institute, to Joseph A. Califano, Jr., Secretary of the Department of Health, Education and Welfare, stated that "your statements reflect the erroneous view that brand advertising has an effect on the decision to begin smoking," and asserted that the 1978 Surgeon General's Report "suggested that the primary motivating factors in smoking by young people were the influence of peers, smoking parents, and older siblings."

1786. However, as Cigarette Company Defendants' internal documents and other evidence discussed above, as well as those examples listed below, establish, Cigarette Company

Defendants have purposefully marketed their brands as "popular" or having peer appeal to encourage young people to smoke their brands. Cigarette Company Defendants researched what they deemed the "herd" instincts of young people – that young people would choose a cigarette brand that they perceived to be the most popular or "number one" among their peers – and attempted to harness these "herd" instincts in their marketing to incentivize youth initiation and brand choice.

(a) Philip Morris

1787. In a December 12, 1984 Philip Morris report entitled, "Cigarette Market History and Interpretation," John E. Tindall, Senior Scientist at Philip Morris, stated that in order to discover why certain brands have captured the young smokers' market, it is necessary to "try to understand why young people have a herd instinct. From their choices of food, clothes, transportation, entertainment, heroes, friends, hangouts, etc., it is clear that they do. More important to us (and probably to many other product categories) is why they make certain choices instead of others."

1788. In a May 24, 1988 document, Carole Kux, an employee at Philip Morris's advertising agency Leo Burnett U.S.A., discussed the Marlboro Reds Qualitative Study conducted by her Philip Morris team which explored 18-24 year old Marlboro Red smokers' perception of the Marlboro brand image. This study found that "Marlboro's brand stature is important to Reds smokers: they liked smoking the 'number one' brand."

1789. An internal Philip Morris document, apparently drafted in 1988 and containing plans for marketing Parliament in 1988 and 1989, stated: "To target the 18-24 males and

females, our retail focus will be on pack outlets . . . and will be trial/conversion oriented. This younger age group is more likely to make decisions based on peer pressure. To convey the idea that everyone is smoking Parliament, the brand should have continuous high levels of visibility in as many pack outlets as possible."

1790. An August 7, 1990 report entitled "New Brand Opportunities in the Cigarette Industry" written by Gibbons, Voyer & Associates, Inc., for Philip Morris found that 17-19 year olds comprise 18.9% of smokers, and that "Marlboro dominates young adult smoker market: initial exposure, peer pressure, meets image wants" and that "switching occurs as smokers enter their mid-20's."

1791.

[REDACTED]

[REDACTED]

1792.

[REDACTED]

[REDACTED]

1793.

[REDACTED]

[REDACTED]

1794.

[REDACTED]

[REDACTED]

1795. A May, 1999 Philip Morris report entitled "National Market Structure Study" discussed a 1998 survey which examined cigarette brand popularity that Philip Morris conducted to update a 1992 survey on the same topic. This report which demonstrates Philip Morris's knowledge that survey respondents are not accurate in self-reporting their motivations for choosing a cigarette brand, used sophisticated measuring techniques to determine respondents' actual reasons for brand choice, and found that, despite respondents' self-reporting to the contrary, the popularity of the brand among peers was the most important factor in brand choice for young people. The report stated: "The attributes associated with brand choices are very different from those stated to be important – popularity is key." The report concluded: "young adults are influenced by peer popularity while 25's to 29's look to overall popularity in assessing brands."

1796. In contradiction of the May 1999 study's findings, Nancy Lund testified at her

June 27, 2002 deposition that "smokers choose Marlboro because it's the most flavorful and probably the highest quality cigarette in the marketplace." However, the study itself reported that only "23 percent of smokers choose Marlboro for its quality tobacco."

1797.

[REDACTED]

[REDACTED]

1798.

[REDACTED]

[REDACTED]

1799. At her April 16, 2002 deposition in this case, Shari Teitelbaum, Philip Morris Director of Marketing and Sales Decision Support, testified that Philip Morris has used the term "herd smoker" to refer to smokers of the most popular cigarette brands, like Marlboro, Camel, and Newport, because these brands attract the largest share of young-adult smokers. Teitelbaum further testified that herd brands are "the most popular, it's for smokers that would be likely to kind of follow the herd, kind of more of a group mentality type of thing."

1800. At her June 27, 2002 deposition in this case, Nancy Lund testified that Philip

Morris collected information on whether smokers perceive particular brands to be "popular" brands as part of its continuous consumer tracking survey in order to help it to "understand if the brand is remaining new and relevant and growing in the marketplace or whether the consumers think that this brand [] is washed up." When asked why this information would be important in marketing Marlboro, Lund admitted that "at least what we know about young adult smokers, for some of them, the fact that Marlboro is a popular brand may be a factor in why they choose Marlboro." Philip Morris interprets a high "popularity" rating for Marlboro as positive. When asked whether she was aware that there is internal Philip Morris data from the Youth Smoking Prevention Department that shows that children ages 12-17 choose to smoke Marlboro because of its popularity, Lund testified: "I certainly have heard and understand that Marlboro is a popular brand among that group [12 to 17 year olds]."

(b) Lorillard

On March 25, 1992, Arthur Stevens, Lorillard General Counsel, sent a memorandum to Gary W. Garson, Loews Vice President, Deputy General Counsel and Assistant Secretary, entitled "Loews 1992 Annual Meeting Shareholder Proposals 5 and 6." This memo stated that "[t]he WSJ article of March 13, 1992 reported the R.J. Reynolds response to this survey, viz, that teenagers are influenced in both their decision to smoke, and their brand selection, by the practices of their peers and families, rather than by advertising. Our MRD [Marketing Research Department] people agree with that conclusion."

1801. Newport's 1994 Brand Plan stated that "Newport is the leading menthol cigarette brand among younger adult smokers in the freshness segment, positioned to appeal primarily to

general market/urban center adult smokers ages 18-24" and that "Newport's creative product must strengthen Newport's competitive edge as the 'peer' brand among younger adult smokers."

1802. In a July 26, 1994 memorandum entitled "Final Report: Newport P.O.W. Promotion Evaluation in Tiers I and II-MPID #5543/394" S. Benson detailed a promotional program with the purpose of reinforcing "Newport's image as the 'peer brand' among young adult smokers."

1803. The Newport magazine campaign was intended to showcase Newport's peer popularity. The advertisements featured groups of happy young people and the brand name "Newport." According to Lorillard's senior group brand director for Newport cigarettes, Newport's advertising theme of "pleasure" appeals to all ages, especially the advertised "pleasure" of hanging out with friends.

(c) Brown & Williamson

1804. At her July 1, 2002 deposition in this case, Brown & Williamson's Brennan Dawson testified that she believes that while influences other than advertising are the predominant reason why young people smoke, advertising is influential to some extent in young people's brand choices because "what you find is that youngsters, children, teenagers tend to smoke the more popular brands, and that you can relate their popularity to their advertising."

(d) R.J. Reynolds

1805. An undated handwritten document addressed to "D. Nordine and D. Burroughs" [sic - Diane Burrows, R.J. Reynolds] discussed marketing based upon adolescent themes such as belonging and stated that "most 18-20 yr olds have no concept of brand advertising -- [they]

observe by seeing a brand's smokers."

1806. A 1988 R.J. Reynolds document entitled "Camel Advertising Development White Paper" discussed the importance of younger adult smokers and analyzed "why Camel has an opportunity to target younger adult smokers." The White Paper stated that "Marlboro's key strength relates to peer acceptability and belonging Marlboro is perceived by younger adult smokers as a brand which provides a sense of belonging to the peer group. A variety of research studies including the Segment Description Study, the Marlboro Vulnerability Analysis, in-market perception research, as well as in-depth qualitative [research] all show this." The White Paper then discussed how Camel could reconfigure its market image so as to appeal to the "peer acceptability and belonging" themes so effectively exploited by Marlboro's advertising.

1807. Through smoker research, R.J. Reynolds knows that first brand choice is largely based on brand popularity and "peer pressure." At his May 2, 2002 deposition in this case, Edmund Leary testified that "I think advertising and promotion can influence an adult smoker's brand choice, and I think, you know, if it's your first brand choice, if the brand is popular, that has lot to do with it, as well as what your friends smoke."

1808. Brennan Dawson, Brown & Williamson Vice President for External Affairs, at her July 1, 2002 deposition in this case, testified that peer popularity drives youth brand choices: "I think that youth who have already begun to smoke, a teenager, for example, is more likely to smoke what they perceive to be a popular brand."

(5) Internal Documents and Other Evidence Show That Cigarette Company Defendants Are Aware of, and Exploit in Their Marketing Efforts, Young People's Price Sensitivity

1809. Cigarette Company Defendants have long recognized the importance of price-based marketing efforts as a key marketing strategy, particularly for attracting young people. Defendant-initiated reductions in price, such as the steep drop in the wholesale price of cigarettes most popular with young people that was led by Philip Morris on "Marlboro Friday," have reduced the rate of decline in overall cigarette smoking and contributed to the increases in youth smoking incidence and prevalence observed during much of the 1990's.

1810. Similarly, Cigarette Company Defendants' price-related marketing efforts, including coupons, multi-pack discounts, and other retail value added promotions, have partially offset the impact of higher list prices for cigarettes, historically and currently, particularly with regard to young people.

1811. Cigarette Company Defendants' use of price promotions to reach young people and encourage trial and initiation has dramatically increased in recent years. The Federal Trade Commission reported that in 1999, \$3.54 billion or 43% of the tobacco industry's advertising and promotion expenditures were devoted to trade promotions, up from \$856 million in 1987.

1812. Independent research confirms' Cigarette Company Defendants' knowledge, as stated in their internal documents and other evidence, that youth and young adults are more responsive to increases in cigarette and other tobacco prices, and will not try smoking or continue to smoke if cigarette prices are higher.

1813. Generally, young people are two to three times more sensitive to price than adults. Estimates from a recent published study of youth smoking initiation indicate that a 10% increase in cigarette prices would reduce the number of youth who become daily smokers by more than

88,000 teens each year. Such an increase would also cause an additional 170,000 high school smokers to stop smoking.

1814. A June 1997 published article, "The Food and Drug Administration's Rule on Tobacco: Blending Science and Law," indicated that data has confirmed that children and teens are more price sensitive than adults and that pricing has an immediate and direct impact on cigarette sales to minors.

1815. The following examples of internal company documents and deposition testimony establish that as early as 1956, Cigarette Company Defendants were studying the price sensitivity of young people in order to exploit this price sensitivity to entice them to start smoking and keep them from quitting smoking by offering lower priced cigarettes directly to the youth market.

(a) Philip Morris

1816. A September 18, 1956 Philip Morris inter-office memo "re: College Survey" prepared by George Weissman described the results of a 1956 college survey that Elmo Roper conducted for Philip Morris. In a section of the memo entitled "The Economics of Cigarettes," Weissman stated: "Sixteen per cent of the students who never smoked gave 'too expensive' as a reason. Seventeen per cent who gave it up gave this as a reason. An even larger percentage suggested reduction in price. Again, this brings to mind the possibility of a less expensive unit of sale if such a unit can be controlled and strictly confined to the college market."

1817. In a May 21, 1975 memorandum titled "the Decline in the Rate of Growth of Marlboro Red," Myron E. Johnston, Senior Economist for Research and Development at Philip Morris, stated "that Marlboro has for many years had its highest market penetration among

younger smokers. Most of these studies have been restricted to people age 18 and over, but my own data, which includes younger teenagers, shows even higher market penetration among 15-17 year olds." Johnston blamed price elasticity and young peoples' price sensitivity for Marlboro's decline in sales in 1974: "Marlboro smokers, being on the average considerably younger than the total smoking population, tend to have lower than average incomes. Thus, I would expect a disproportionately large number of Marlboro smokers to quit smoking or reduce daily consumption."

1818. In a September 17, 1981 memorandum, Johnston examined the impact on teenage smoking of: (a) the excise tax on cigarettes; (b) the FCC Fairness Doctrine (which mandated equal-time anti-smoking commercials for all cigarette commercials); and (c) the broadcast ban. He stated that the March 1981 National Bureau of Economic Research ("NBER") working paper entitled "The Effect of Government Regulation on Teenage Smoking" was

the only study I know of that attempts to determine the price elasticity of cigarettes among different groups; because of the quality of the work, the prestige (and objectivity) of the NBER . . . I think we need to take seriously their statement that 'if future reductions in youth smoking are desired, an increase in the Federal excise tax is a potent policy to accomplish this goal;' most researchers, myself [Johnston] included, have concluded that the best estimate of the price elasticity of cigarettes is about -0.4, i.e. that a ten percent increase in the retail price of cigarettes will cause a decline of about four percent in cigarette sales; . . . that the price increases would have less impact on the . . . older and therefore more habituated smokers, than on other smokers.

1819. In a document dated September 17, 1981 Johnston discussed findings by the NBER that teens and young adults are up to three times more sensitive to price increases and the inflationary loss of purchase power than older smokers. Anticipating a higher excise tax,

Johnston predicted: "[G]iven the evidence that individuals are considerably less likely to initiate smoking after age 25, it is quite possible the cohort . . . who never begin to smoke as a result of the tax increase would never become regular smokers."

1820. In a September 22, 1981 document entitled "Teenage Smoking and the Federal Excise Tax on Cigarettes," Harry Daniel, Planning Coordinator at Philip Morris, stated that "it is clear that price has a pronounced effect on the smoking of teenagers."

1821. In a January 5, 1982 document entitled "Cigarette Price Elasticities and the Implications for [Philip] Morris," Johnston analyzed the effect of excise tax increases on demand for cigarettes, especially among teenagers and concluded that "any increase in the price of cigarettes will have its greatest effect on the young, and, in particular, on young males."

1822. In a March 25, 1982 document entitled "Still More on the Price Elasticity of Cigarettes," Johnston analyzed the effect an excise tax increase will have on cigarette demand, especially among teenagers and concluded that "[i]f there is a proposed increase, and if it is indeed one dollar per thousand, it would probably be less harmful to the industry to accept it without comment than to fight it and give the anti-smoking fanatics another forum in which to vent their spleen."

1823. A December 6, 1982 Philip Morris report entitled "Price Elasticities, Excise Taxes, and Cigarette Sales" outlined Philip Morris's opposition to raising excise taxes on cigarettes despite internal studies showing that raising cigarette prices was the most effective way to reduce youth initiation and youth smoking. The report reflected Philip Morris's knowledge that "the main effect of an excise tax increase will be to reduce the number of young people who

begin to smoke." Despite this knowledge, Philip Morris continued to vigorously oppose all cigarette excise tax proposals.

1824. In a September 3, 1987 Philip Morris memorandum entitled "Handling an Excise Tax Increase" Johnston stated that

"you may recall . . . that Jeffrey Harris of MIT calculated on the basis of the Lewin and Coate data, that the 1982-83 round price in[crease] caused two million adults to quit smoking and prevented 600,000 teenagers from starting to smoke . . . this means that 7,000,000 of those adult quitters had been smokers and 420,000 of the non-starters would have been Philip Morris smokers. Though Harris is right, we were hit disproportionately hard. We don't need to have this happen again.

Johnston then recommended passing on any future increase to smokers in "one fell swoop," making it clear to smokers that the government is solely responsible for the price increase, encouraging smokers to stockpile so they will be less likely to remember what they last paid for cigarettes, and making sure the brands the retailers stockpile are Philip Morris brands.

1825. An August 7, 1990 report entitled "New Brand Opportunities in the Cigarette Industry," written by Gibbons, Voyer & Associates, Inc., for Philip Morris, found that 17-19 year olds comprise 18.9% of smokers, and recommended that any marketing approach must "insure that Philip [Morris] has a brand entry to meet the various wants of young adult smokers: image, product, price." (Emphasis added.)

1826. Philip Morris actually distributed coupons based upon excise tax increases, so as to ensure that no young smokers would be deterred from smoking by an increase in prices. A July 11, 1990 memorandum about the "New Jersey Tobacco Tax Plan" from Wanda Johnson of Leo Burnett U.S.A., stated: "The attached media plan provides a means of distributing coupons

to P.M. smokers in the state, on an 'urgent' timetable, in order to counter any ill effects of that tax increase. The New Jersey plan is modeled after the California plan."

1827.

[REDACTED]

[REDACTED]

1828. In 1994, after "Marlboro Friday" had its intended effect of bringing hundreds of thousands of young people back to the market, Philip Morris congratulated its employees for defeating thirty-four of thirty-seven government attempts to increase price through excise taxes, stating: "Your batting average on state excise taxes has been outstanding."

1829. At his July 1, 2002 deposition in this case, Robert L. Mikulay, a Senior Vice President for Marketing at Philip Morris, testified that Philip Morris relied much more heavily on retail promotions in the late 1990s than it did during the mid-1980s because of the increase in the price of cigarettes and the increased presence of discount brand cigarettes.

1830. Philip Morris currently admits that increased cigarette price is a variable that would lower youth smoking rates. Carolyn Levy, Director of the Youth Smoking Prevention

Department from its inception in April 1998 to approximately March 2002, testified in this case that Philip Morris was aware that "the price of cigarettes for some kids appears to be an important variable in preventing them from smoking [I]t's an important reason for at least a third of the kids" surveyed in the Philip Morris Teenage Attitudes and Behavior Study ("TABS"). When asked the implications of these results from the TABS data, Levy testified: "I think these results, in combination with other findings in TABS, as well as the other reading [from outside authorities], led me to conclude that while the price of cigarettes was not the only variable that would keep kids from smoking, that it did play a role," and that "while it's appealing to think, well, most kids don't buy their own cigarettes, so price isn't a variable, I think price is a variable."

1831. At his August 22, 2002 deposition in this case, Geoffrey Bible testified that he "assumes that young people are sensitive to prices," so smoking incidence would decrease due to price increases caused by MSA.

(b) Liggett

1832. At the October 12, 2001 deposition of Harold Petch, who at that time was Liggett's President of the Northern Strategic Business Unit (but had also served as Vice President of Sales, Zone Manager, and National Account Salesman), Petch testified that Liggett is aware that price affects consumption.

(c) Lorillard

1833. An August 5, 1982, a NBER report entitled "The Potential for Using Excise Taxes to Reduce Smoking" examined the effect of teenagers' price sensitivity on their cigarette purchases, and determined that "price has its greatest effect on the smoking behavior of young

males and that it operates primarily on the decision to begin smoking regularly rather than via adjustments in the quantity of cigarettes smoked." This document was produced from the files of Lorillard.

(d) Brown & Williamson

1834. In a May 10, 1983 internal memorandum R.P. Medicus of Brown & Williamson's Brands Group discussed the impact of unemployment in 1974 and price increases on Kool's market share. The memorandum stated: "Brands directed at segments most affected by economic adversity (youth and minorities) were affected disproportionately. For four youth oriented brands/styles [Kool KS, Kool Milds, Kool Super Longs, and Marlboro], there was a share trend break in the latter part of 1974, which coincided with increased unemployment."

1835. At his June 5, 2002 deposition in this case, Mark Kovatch, Vice President of Trade Marketing, Brown & Williamson, testified that Brown & Williamson spent \$300 million discounting (meaning distributing coupons for) Kool in calendar 2001. Kovatch testified that the MSA price change was the largest price increase Brown & Williamson had ever made in the history of the company, and as a consequence, Brown & Williamson provided massive price reductions through coupons which resulted in price reductions becoming a very large percentage of the selling price.

(e) R.J. Reynolds

1836. In a September 20, 1982 memorandum Diane S. Burrows, R.J. Reynolds Marketing Development Department researcher, estimated how the cigarette industry would be affected by a federal excise tax increase. Burrows estimated that an excise tax increase would

result in 1,759,000 "new smokers" lost to the industry, whose potential consumption, if they had smoked 10 cigarettes a day, would amount to 605 million cigarettes, or .1% of the industry total. Burrows stated that: "Since the industry growth rate depends on new smokers, losses in these groups can change the direction of the industry trend."

1837. In a September 20, 1982 memorandum Greg Novak, R.J. Reynolds Group Director of Marketing Services stated: "Our Forecasting Group has determined that younger adult smokers, particularly younger adult male smokers, tend to be very price sensitive. The effect of a price increase on younger adult male smokers could be three to four times greater than on smokers in general, in terms of negative impact on volume."

1838. In a September 23, 1982 memorandum entitled "Estimated Change In Industry Trend Following Federal Excise Tax Increase," Burrows analyzed the 1981 NBER economic models linking price to incidence and rate. The memorandum included data on "starting age patterns," "[s]tarting age," and "new smokers," and concluded that if the \$0.08 federal excise tax on tobacco were doubled and passed on to consumers, total cigarette consumption, especially among "new smokers," would fall.

1839. In an October 6, 1982 report entitled "NBER Models of Price Sensitivity By Age/Sex," Burrows analyzed the 1982 NBER report "The Potential For Using Excise Taxes to Reduce Smoking," stating that "teenagers and younger adult males are highly price sensitive" and that "the loss of younger adult males and teenagers is more important to the long-term, drying up the supply of new smokers to replace the old."

1840. In an August 1986 report entitled "RJ Reynolds Quarterly Industry Cigarette

Demand Model," Data Resources, Inc. updated R.J. Reynolds's earlier information regarding price elasticity. The report stated that: "The current research effort has endeavored to test the validity of the relative price elasticity estimates and to further develop some conclusions concerning the impact of the anti-smoking campaign and changes in real income." The report applied a model to determine price elasticity estimates: "The principle output of the model is weekly average cigarette volume. The forecast is driven by : 1) transaction cigarette prices per package; 2) count of cigarette articles appearing in the New York Times; 3) real personal disposal income in 1982 dollars; 4) consumer price index for food, 1967 equal 1.0; and 5) population by 12 age/sex categories." An included chart entitled "1965 World Incidence" included an age category of "12-17" year olds.

1841. In its Joe Camel campaign which began in 1988, R.J. Reynolds used a large amount of price promotions such as coupons and "Camel Cash," to assure that teenagers would try and continue to smoke Camel cigarettes. Coupons were placed in magazines with large youth readership, such as Rolling Stone and Sports Illustrated in order to have the maximum impact on the intended target of teenagers. As one example, on November 21, 1988, R.J. Reynolds placed Camel advertisements which included coupons for a free pack in Sports Illustrated.

(6) Cigarette Company Defendants Continue to Fraudulently Deny That They Target the Youth Market, While Also Continuing To Target Young People With Their Marketing

1842. Defendants continue to deny that they target the youth market. For example, at her June 25, 2002 deposition in this case, Suzanne LeVan, Vice President of Marlboro and former Vice President of Philip Morris Premium Brands, testified that "Philip Morris markets its

brand to adults who choose to smoke" and that "Philip Morris doesn't direct any of its marketing efforts to non-smokers." In response to the question: "does Philip Morris do anything to recruit non-smokers to begin smoking?" LeVan testified, "No, sir, they do not."

1843. In response to the question "What percentage of Philip Morris' marketing efforts are spent trying to convince minors to smoke Philip Morris brands?" LeVan testified "None. Philip Morris doesn't market to minors" and further testified that that was "a true statement for all of [her] years at Philip Morris."

1844. Moreover, each Cigarette Company Defendant continues to state to the public on its website and in other public statements that it does not market to non-smokers or to any individual under the age of twenty one.

1845. Despite Cigarette Company Defendants' public statements that they do not target young people with their marketing, and despite the prohibitions on doing contained the Master Settlement Agreement ("MSA"), in fact Cigarette Company Defendants have aggressively reshaped their marketing since the MSA so that they remain effective at reaching youth.

1846. For example, after the MSA's ban on mass advertising vehicles, such as billboards, Philip Morris continued to shift its marketing focus to "relationship marketing." In relationship marketing, the marketer seeks to establish a dialogue with a consumer, such as through Philip Morris's bar nights, chili promotion, sending birthday cards, or sweepstakes. Prior to the MSA, Philip Morris had already begun to shift its focus from mass marketing toward relationship marketing during the 1990s because of the effectiveness of relationship marketing.

1847. According to the deposition testimony in this case of Edmund Lear, since entering

the MSA, R.J. Reynolds has redirected its marketing funds to promotional spending and discounting because these are marketing tools that allow R.J. Reynolds to "gain trial from other adult competitive smokers"

1848. As of May 21, 2002, Liggett was still promoting its products with "buy one get one free" programs, as well as sampling.

1849. According to May 16, 2002 testimony of Lindsley, Lorillard's senior brand manager, Lorillard has increased its marketing expenditures since Lorillard entered the MSA.

1850. Cigarette Company Defendants' strategies continue to be to simply redirect its marketing focus and funds when one form of media, such as billboard advertising under the MSA, is disallowed. As the documents and other evidence below establish, they are capable of harnessing other mediums when one is restricted to continuing to effectively reach and target smokers and potential smokers.

(a) Cigarette Company Defendants' Marketing Expenditures Have Dramatically Increased Since Signing the Master Settlement Agreement in November 1998

1851. Statistics recently released by the Federal Trade Commission ("FTC") in its Cigarette Report for 1999 (published 2001) show that Cigarette Company Defendants' advertising and promotional expenses rose significantly after the Cigarette Company Defendants signed the MSA in November 1998.

1852. In fact, total advertising and promotional expenditures rose 22.3% to \$8.24 billion, the most ever reported to the FTC.

1853. While substantial decreases were reported for outdoor advertising (down 81.7% from 1998 to 1999) and transit advertising (down 86.1%), due to the restrictions of the MSA, increases in expenditures for promotional allowances and retail value added account for virtually all of the overall rise in spending.

1854. Expenditures on cigarette advertising and promotion, historically and currently, remain high on an absolute basis and relative to other industries. For example, in 1999, domestic cigarette advertising and promotion totaled \$8.2 billion, an increase of 22% over 1998, and a six-fold increase over 1963, after adjusting for inflation. In the nine year period from 1991-1999, domestic cigarette advertising and promotional expenditures totaled \$51.4 billion dollars (unadjusted for inflation). Promotional allowances have been the single largest category of expenditure each year since 1994. The Cigarette Company Defendants' expenditures are inextricably linked and coordinated by the companies for maximum impact (integrated marketing communications), particularly upon young people.

(b) The Cigarette Company Defendants Continue to Target Youth With Their Marketing at Point-of-Sale, Including Trade Promotions and Other Materials Displayed in Retail Stores

1855. The Cigarette Company Defendants have engaged in a huge post-MSA spending increase on trade deals, value-added, and other forms of promotion, which has helped to create relatively lower and more varied real prices. For example, FTC data indicates that "retail value added" spending on offers such as "buy one, get one free" or "buy one and get a free lighter" grew from \$1.56 billion in 1998 to \$2.56 billion in 1999, accounting for 31.1% of the industry's total advertising and promotion spending. Additionally, cents-off promotions increased in

prevalence after the MSA from 32% to 41% of United States' stores.

1856. For example, Philip Morris's retail promotions budget for Marlboro increased from \$16.7 million in 1987 to \$469.4 million in 1997. By 2000, the retail promotions budget exceeded \$1 billion. Due to increased focus on price promotion, which is very costly, Philip Morris's Marlboro continuity program budget increased from \$8.5 million in 1987 to \$268.8 million in 1997.

1857. Marketing at the point of sale, which includes the trade promotions discussed below as well as marketing materials (signs, banners, display cases) that are displayed at retail locations, is the one of most important marketing activities currently engaged in by the Cigarette Company Defendants. Retail marketing activities interact with the retail environment to help create brand equity.

1858. The retail environment is also important because it provides the "final opportunity" for manufacturers to influence consumer purchase decisions.

1859. Studies support the Cigarette Company Defendants' belief that marketing at retail is currently the best forum for delivering and reinforcing brand equity and promotion messages. Surveys show that in-store marketing activities are the biggest source of brand awareness – the understanding and knowledge of a particular brand name and image – for consumers. For instance, Brown & Williamson's United States' Market Monitor pilot results "indicate that the store environment, especially displays, inside stores is the biggest source of advertising awareness for all cigarette trademarks."

1860. Visibility in convenience stores is especially important as such stores from the

primary trade channel for pack sales and reach the most important demographic group for trial, occasional purchase, switching and long term sales. The communication of brand image – the "sought image on the part of a manufacturer or retailer associated with a brand or the derived image in the mind's eye of a consumer relative to a brand" – is critical to the success of a brand and the launch of a new brand or line extension. Visibility of brands means communicating a brand equity message, which influences consumer choice, creates brand awareness and encourages product trial. It speeds and improves cigarette sales.

1861. Many convenience and liquor stores in certain parts of the country are filled with self-service racks and open cigarette cartons, often near the main check-out. Self-service flourishes in the rapidly growing cigarettes-only retailers (such as the Cigarettes Cheaper! chain). Along with these shifts in self-service activity, the retail environment has seen a steady upswing in the amount of in-store and parking-lot banners, retailer billboards, signage, clocks, shopping baskets and carts, and change trays that feature the brand names and prices of cigarettes. In many stores, consumers are being constantly bombarded with a variety of stimuli designed to encourage impulse purchases, which are displayed in particularly-noticeable ways or with money-saving prices. The tobacco industry is now dominating the stimuli in many of these stores in the hope of dominating the impulse purchases.

1862. The tobacco companies are making very large payments to retailers to encourage the creation of a retail environment that encourages trial and consumption of tobacco products. These payments include: "slotting fees", also known as "slotting allowance", "display fee", or "placement fee" (a cash payment made for displaying brands at certain heights, or in certain

locations, or with a certain number of facings, i.e., units of a product with the product's name and/or high-recognition trademark or logo visible at the front of a retail store shelf or rack); "trade allowances" (reductions in the amount due on invoices or offers of free cases); "buy downs" (payments made either in cash or as off-invoice allowances to encourage the retailer to reduce the price of products currently held in inventory); "rebates" (payments made in cash or as off-invoice allowances to retailers who have achieved certain sales volumes); and "two for ones" (retailers buy brands that are packaged in pairs of packs, where consumers pay for a single pack and get two, and the retailers are only charged for a single pack also).

1863. The tobacco companies offer retailers deals, under which the companies compensate retailers with cash, reductions (or allowances) on the invoices for cases sold to the retailers, free cases, free or discounted equipment (e.g., display cases, shopping carts, clocks), or free entertainment (e.g., NASCAR tickets, free vacations, clothing). In return, the retailers provide desirable product placement, such as: displaying a given brand with a specific number of facings (i.e., visible spaces at the front of a display or rack); displaying a given brand in a particular location in the store (e.g., on the counter, in a self-service barrel, close to the register); allowing tobacco advertising to appear on shopping baskets, shopping carts, gas pumps, exit signs, clocks, banners, counter tops, behind-the-counter shelves, front windows, walls, and curb signs; or prominently displaying a larger percentage of one tobacco company's brands than any other company's brands. Convenience stores have been reported to make the cash equivalent of as much as \$20,000 per store per year by cooperating fully with relationship-marketing programs (sometimes called Cooperative Merchandising Agreements) such as Philip Morris's Retail

Leaders program.

1864. A recent study which aimed to assess the effect of the MSA's April 24, 1999 ban on billboard tobacco advertising on the tobacco industry's point-of-purchase marketing strategies showed significant post-ban increases in the presence of tobacco sales promotions, functional objects, and exterior and interior store advertising, as well as extensiveness of exterior store advertising and concluded that the industry is shifting some of the expenditures once spent on billboard advertising to the advertising and promotion at the point-of-purchase.

(c) The Cigarette Company Defendants Continue to Target Youth With Their Events and Sponsorships

1865. The Cigarette Company Defendants have increased their event and sponsorship budgets since signing the MSA. For example, the Philip Morris events budget, including bar nights and sponsorships which appeal to the youth market was \$23.3 million in 1987 and increased almost three-fold between 1987 and 1997.

1866. The Cigarette Company Defendants also increased their budgets for auto-racing sponsorships, a marketing activity permitted under the MSA. These sponsorships allow the Cigarette Company Defendants to garner national television exposure, despite the broadcast ban on televised cigarette advertising. In 1999, for the three main tobacco-sponsored auto racing series (NASCAR Winston Cup, CART FedEx Championship where Marlboro and Kool sponsor racing teams and Philip Morris offers the Marlboro Pole Award, and NHRA Winston Drag Racing), the tobacco industry realized over \$120 million of television exposure in the United States alone.

1867. For example, with regard to the NASCAR Winston Cup, the Winston brand name

is displayed on the television graphics and referred to by announcers during the two to three hour race broadcast. Such races are preceded by run-up events, including qualifying and announcement of pole positions, and followed by highlight footage or the announcement of awards, such as the Winston "No Bull" race awards. The NASCAR Winston Cup is a very popular sport in the Southeastern United States, with a large fan base, huge television audience, and attendance at races sold out over a year in advance. Recent NASCAR television ratings were double that of the NBA playoffs.

1868. In addition, cigarette brand names are reinforced in press releases, interviews and news stories regarding tobacco-sponsored auto racing series. Branded advertising includes not only individual racing machines (cars), but also drivers' uniforms, team uniforms, hats, and the large transporters used to move cars from event to event. The events themselves offer marketing opportunities for trackside billboards, sampling, hospitality tents, and promotional giveaways, like hats, sunglasses, and programs. All of these cigarette marketing activities intentionally reach millions of young people who attend, watch on television, listen to, or read sports news. The continued funding of this marketing tool, as well as its success with young people, belies R.J. Reynolds's August 1994 statement before the U.S. House of Representatives Committee on Energy and Commerce, Subcommittee on Health and Environment, that "radio and television exposure is not a motivating consideration for Reynolds in deciding whether to sponsor an event or a vehicle participating in an event."

(d) The Cigarette Company Defendants Continue to Target Youth With Their Magazine Advertising

1869. A study published in May 15, 2002 documents the increase in the Defendant

Cigarette Companies advertisements since the signing of the MSA in November 1998. The study entitled "Cigarette Advertising Expenditures Before and After the Master Settlement Agreement: Preliminary Findings," and prepared by Diane Turner-Bowker, Massachusetts Department of Health, and William L. Hamilton, Ph.D, Abt Associates Inc., found that "Cigarette advertising expenditures in magazines with more than 15 percent youth readership increased \$30 million after the MSA."

1870. In fact, after the MSA, Cigarette Company Defendants reported to the FTC significant percentage increases in spending for newspapers (up 73%), magazines (up 34.2%), sampling (up 133.5%) and direct mail (up 63.8%).

1871. The influence of print advertising on youth cannot be underestimated. According to a February 18, 1998 published article, magazine advertising is important because this medium can be used to selectively target specific market segments. A recent study that appeared this year in the Journal of the American Medical Association concluded that "cigarette brands popular among young adolescents are more likely than adult brands to advertise in magazines with high youth readerships."

1872. A 2002 study conducted by scientists from the University of Chicago's Department of Pediatrics and Medicine documented violations of the MSA's youth-targeting ban in magazine advertisements by Philip Morris, R.J. Reynolds, and Brown & Williamson. The study analyzed magazine readership and cigarette advertisements in United States magazines from 1997 to 2000 and found that all three of these Cigarette Company Defendants failed to comply with the MSA's youth-targeting ban, selectively increasing their youth targeting.

1873. The following paragraphs evidence each Cigarette Company Defendant's efforts to continue to directly target youth in magazine advertising.

(i) Philip Morris

1874. Prior to 1990, and during the early 1990s, Philip Morris's stated media policy was to place cigarette advertisements in publications where 80% or more readership was twenty-one plus years of age. Philip Morris's evaluation process was not quantitative, but rather was a subjective determination by Philip Morris employees. The Philip Morris Media Department along with legal counsel made subjective determinations and recommendations for publication placements based upon their personal review of the "content" of the publication, including looking at whether the publication's editorial content was directed towards adults and whether other products advertised in the publication were adult products. Through this subjective determination process, Philip Morris's media employees and attorneys would decide whether a publication passed muster under the advertising guidelines as set forth in the Cigarette Advertising and Promotion Code. Virtually no magazines failed to qualify for placement of Philip Morris cigarette advertisements under Philip Morris's subjective review process during this period.

1875. In approximately 1995 or 1996, Philip Morris's stated media policy changed and cigarette advertisements were to be placed only in publications where 85% or more readership was twenty-one-plus years of age or older. However, Philip Morris's evaluation process was still subjective and not quantitative, although it had some quantitative data upon which to base its decisions. At that time, Philip Morris advertised in many magazines with high youth readership

such as Rolling Stone.

1876. There are studies that have been available for years for purchase by Cigarette Company Defendants, as well as other advertisers, that provide a quantitative measure of total readership data for various publications. The MRI study quantifies readership data from two sources: the MRI teen study (measuring readership of twelve to nineteen year olds) and the MRI adult study (measuring readership of eighteen plus year olds). A similar quantitative study performed by the Simmons Market Research Bureau is also available. Despite the availability of the MRI and Simmons data, which Cigarette Company Defendants could have used to determine their compliance with their own advertising code which in relevant part claims that Cigarette Company Defendants do not direct cigarette advertising at publications directed primarily to those under twenty-one years of age, Cigarette Company Defendants chose not to purchase such quantitative data, instead relying upon their own internal subjective review standards.

1877. Beginning in 1998, Philip Morris's new media placement policy required publishers to provide a signed statement that its publication was "primarily directed at adults" and to provide data of the percent of twenty-one-plus readership based upon the subscription circulation as measured by the MRI adult study. These are the same publishers who unarguably have a financial interest in maintaining their advertising sponsorships with cigarette companies. With certification and publisher data in hand, Philip Morris again conducted its own "subjective review" of the publication content before determining whether to approve the placement of advertising in certain publications.

1878. Philip Morris continued to recognize into the late 1990s the importance of

maintaining Marlboro's brand image with youth.

[REDACTED]

[REDACTED]

1879.

[REDACTED]

[REDACTED]

[REDACTED]

1880. [REDACTED]

[REDACTED]

[REDACTED]

1881. [REDACTED]

[REDACTED]

1882. [REDACTED]

[REDACTED]

magazines was governed by its Print Leadership Initiative.

1883. Even other publishers of youth magazines immediately recognize the magazines that are targeted toward a youth audience and have high youth readership. A November 5, 1999, letter to Ellen Merlo, Senior Vice President at Philip Morris, Spin Publisher Malcolm Campbell, questioned Philip Morris's decision to pull advertisements (which it did due to external pressure) based upon Spin's youth readership:

From a couple of terse phone conversations, I think our demise is based on a perception that *Spin* is too youthful. I respect your right to subjectively critique publications, however, to single *Spin* out for being too young, while continuing to support magazines, such as Rolling Stone or Details is ludicrous. I find an inconsistency in the logic that you cannot use Spin, but you will run a centerspread in the current Rolling Stone with a 10 page cover line feature on "The Secret Life of Teenage Girls." Only Rolling Stone has put teen phenoms Britney [Spears], Ricky Martin, The Back Street Boys and Jar Jar Binks on their cover this year, and all with pull-out posters for nifty bedroom collages. These edit packages are clearly targeted at teens, so comparatively, Spin's edit looks quite sophisticated.

1884. On May 16, 2000, Howard Koh, Commissioner of the Massachusetts Department of Health, wrote to William Campbell, prior CEO and President of Philip Morris, expressing concern that there was "a sharp increase in advertising in magazines popular with youth" following the signing of the MSA.

1885. Philip Morris did not stop advertising in Rolling Stone until around May 2000, and only did so after pressure from the States Attorneys General. Application of the 1999 MRI (12+) study reported for Rolling Stone a "reach" of 11.1% for persons below the age of 18, and readership of 24% for persons below the age of 18.

1886. Prior to Information from the MRI study confirming Rolling Stone's high teen readership, Philip Morris had determined through its subjective, internal review process that Rolling Stone passed the requirements of the industry Advertising Code based upon the magazine's provision of a certification that its readership was primarily directed at individuals over the age of twenty-one, as well as its readership data.

1887. As part of its 1996 proposed tobacco rule, the Food and Drug Administration proposed restricting tobacco advertising to adult-oriented publications, which it defined as a publication:

- (i) Whose readers younger than 18 years of age constitute 15 percent or less of the total readership as measured by competent and reliable survey evidence; and
- (ii) That is read by fewer than 2 million persons younger than 18 years of age as measured by competent and reliable survey evidence.

1888. Philip Morris claims that it "voluntarily" adopted this standard to determine where to place its advertising in June 2000.

1889. Camisa stated at his deposition in this case that prior to Philip Morris's adoption of this standard for advertising in publications, he was not aware of the number of teens who were being reached by Philip Morris's advertisements in publications notwithstanding his position as Director of Media. However, other testimony Camisa gave suggested his department had access to, and utilized such data.. According to Camisa, the Media Department created binders of "cheat sheets," similar to "Cliff Notes," for the Philip Morris Brand Groups that contained synopses of each magazine in which Philip Morris cigarette advertisements could be

published. The purpose of the "cheat sheets" was to assist with the process whereby the Media Group made recommendations to the Brand Group as to the composition of publications that would best achieve the media objectives for a particular cigarette brand, such as Marlboro. The "cheat sheets" also contain basic readership demographic information for the various publications in which Philip Morris cigarettes are advertised, including information on the age of readers, the theme of the magazine, and who is the target audience of the magazine.

1890. A September 17, 1996 draft presentation entitled "MRI and Simmons," with the handwritten notation "prepared for counsel," was developed for "internal PMUSA discussion only" and confirms Philip Morris has long had access to this data. This document defines the data collection tools that the tobacco industry uses to determine magazine audience age, status, etc: "Media Mark Research (MRI) and [Simmons] (SMRB) provide magazine audience as well as product consumption data." These statistics are used to determine which magazine has a large youth readership. Despite having these materials in 1996, Philip Morris did not begin to apply them until June 2000. [REDACTED]

[REDACTED]

1891. Even if one were to ignore [REDACTED] evidence and believe Philip Morris's claim that it does not "intentionally" target youth in magazine advertising, Philip Morris evidences, at best, a reckless disregard for whether its advertising does in fact reach youth. In addressing whether a publication in which 2 million of its readers are between the age of 12-17 years of age should contain cigarette advertising, Camisa testified that he considered the readership threshold a flexible standard:

[T]alking about millions of teenagers has to be evaluated within the context of your total media plan, and . . . going back to the Ad[vertising] Code, do you feel comfortable that your advertising is directed primarily to an adult audience. And so, . . . if 2 million in isolation sounds like a lot, or doesn't sound like a lot, I don't know. It has to be evaluated within the context of who the audience is and whether or not the bulk of those impressions are going against the intended audience, which is adults age 21+.

This subjective approach shows that Philip Morris's claimed adherence to the industry advertising code of 1990, which states in relevant part that "Cigarette advertising shall not appear [] in publications directed primarily to those under 21 years of age" – even if true-- exerts effectively no restriction on its advertising. Camisa also testified that he recognized that there is a "spillover" effect where advertising in publications will, admittedly, reach some youth.

1892. As recently as June 2002, Philip Morris maintained a total "consideration set" of approximately 100 publications in which it may choose to advertise its cigarettes. Of those 100 publications, Philip Morris is currently placing cigarette advertisements in fifteen to twenty because only they have passed muster under the proposed FDA guidelines as measured by the MRI or Simmons studies. The remaining eighty or so publications are not measured by the MRI or Simmons studies, so according to Camisa, the FDA guidelines cannot be applied against them. Those approximately eighty publications would be measured against Philip Morris's "print certification" process which states that 85% or more of the subscription or circulation must be twenty-one-plus. Philip Morris may in the future continue to advertise in those eighty publications, particularly for new production introductions, based upon its internal subjective review process.

1893. Moreover, in 1997 and 1998, Leo Burnett, Philip Morris's advertising agency, sent at least seven faxed reports to Philip Morris's Marketing Department and Media Department employees that contained information derived from the MRI 12+ Studies and the Simmons Studies. For example, on March 13, 1997, Leo Burnett faxed Philip Morris a report entitled "Magazines for MRI 12+ Study that Accept Tobacco Advertising." On January 23, 1998, Andrea Starshak, Account Manager for the Simmons Market Research Bureau, faxed a report which contained "horizontal percentage reflect[ing] the portion of each magazine that is comprised of teens age 12-17" from STARS+ 1996 data.

1894. Notwithstanding its availability to Philip Morris, the company at no time prior to adoption of the advertisement publication guidelines in June 2000 applied the Simmons or MRI data to quantitatively measure teen readership of publications. In fact, application of the Simmons or MRI data would have eliminated some of the publications in which Philip Morris placed cigarette advertisements. Upon applying the 15% or 2 million readership standard to MRI and Simmons data in June 2000, forty of the publications in which Philip Morris had placed advertisements did not meet the standard, including Sports Illustrated, Rolling Stone, and Entertainment Weekly. Between June 2000 and June 2002, the date of Camisa's deposition, another 5-10 publications in which Philip Morris advertised cigarettes have failed the FDA standards. These are the same publications in which Philip Morris had continuously placed its cigarette advertisements even in light of its public statements – since the mid-1960s – that its cigarette advertisements "shall not appear [] in publications directed primarily to those under 21 years of age."

1895. Although Philip Morris has reduced its print media profile as recently as June 2002, it is because of its greater emphasis on retail promotions as well as its new marketing strategy which de-emphasizes its print media profile in exchange for a greater emphasis on one-to-one marketing (also known as "relationship" marketing), such as through event programs and direct mail. The reduction in print media advertising, and increase in retail and other promotional spending, is entirely consistent with Philip Morris's overall marketing strategy in recent years, and is not based on a decision to stop targeting youth. In fact to this day, Philip Morris denies that it ever targeted youth in its advertisements.

(ii) Liggett

1896. When asked at a deposition in this case, Liggett's designee on youth smoking issues under the MSA could not say whether Liggett has ever done anything to change its marketing strategy in order to comply with the youth provisions of the MSA.

1897. [REDACTED]

[REDACTED]

(iii) Lorillard

1898. After entering the MSA, Lorillard informed the State Attorneys General by letter of February 9, 2001, that it implemented an 18% rule, in which Lorillard does not advertise in any magazine whose readership is over 18% children 17 years old and younger. Lorillard now subscribes to MRI and Simmons' readership data; however, MRI and Simmons do not track readership data for every magazine in which Lorillard advertises. For magazines in which MRI

and Simmons do not have quantitative information, Lorillard makes a subjective determination on the editorial content of the magazine and its target audience. For example, Lorillard has placed its cigarettes advertisements in ESPN magazine although MRI and Simmons data subsequently indicated that there was greater than 18% youth readership.

1899. Notwithstanding this representation, Lorillard continues to advertise in magazines for which it has no information on whether the youth readership (under 17 years of age) is greater than 18% of total readership.

1900. In fact, Lorillard's advertising campaigns, since the date of the February 9, 2001 letter, reach the same number of "adult" smokers through magazine advertising as they did prior to the MSA.

1901. Lorillard's September 7, 2001 "Newport Brand Plan" for 2002 suggests targeting the young so-called "adult" market through print media "to increase brand awareness and reinforce brand image."

(iv) Brown & Williamson

1902. On September 1, 1998, after entering the MSA, Brown & Williamson conducted a review of its marketing policies and guidelines. Instead of increasing the age of its models in advertisements, B&W lowered the age of models in its advertisements from 30 to 25 years of age.

1903. A report entitled "Kool Target Consumer Media Behavior" dated approximately July 20, 2001, showed Brown & Williamson's use of magazine readership data from the Simmons Market Research Bureau including demographic groups of 12-17, 18+, 12-20 and 21+.

1904. Brown & Williamson publicly claims that starting in December 1999, it only advertised in magazines whose readers under age 18 constitute less than 15% of total readership as measured by MRI or Simmons readership data. In two instances in this case, high level Brown & Williamson executives, Sharon Smith and Susan Ivey, testified that B&W voluntarily adopted the 15% readership rule in December 1999, and implemented it before the calendar year 2000 magazine placements were made. According to Susan Ivey, the policy was adopted after Brown & Williamson received a complaint from the National Association of Attorneys General ("NAAG") concerning advertisements of their "BKOOL" campaign.

1905. In fact, contrary to Ivey's testimony, B&W continued its B Kool campaign in magazines exceeding the 15% threshold into 2000. NAAG complained about its magazine placements in October 1999; however, Brown & Williamson continued to run BKool advertising in Rolling Stone through April 2000.

1906. In a press release issued on August 15, 2001, Brown & Williamson stated that "the company does not advertise in youth-oriented publications," and that, "beginning shortly, B&W ads will be carried only in those publications that are mailed to adults 21 and older." The press release further stated that all Brown & Williamson advertising would be removed from newsstand issues.

1907. Notwithstanding this representation, as of May 15, 2002, Brown and Williamson continues to advertise its brands in general circulation magazines that it knows reach over 2 million readers under the age of 18 years of age.

1908. Despite their statements that they would only place B&W advertisements in

publications mailed to adults 21 and older, B&W has nonetheless resumed placing cigarette advertising in magazines which undisputably have in excess of 15% youth readership, including Rolling Stone, Sports Illustrated, Entertainment Weekly, and Vibe magazines. Brown & Williamson is ignoring the survey evidence from MRI and Simmons concerning the youth readership of these magazines, and relying upon certifications from the magazines that the cigarette advertising is only appearing in special editions sent to subscribers who the magazines can verify are twenty-one or over. As indicated above, the magazine self-certifications concerning youth readership frequently conflict with the data collected by MRI and Simmons.

1909. In fact, Brown & Williamson itself, in a July 9, 1985 document, described Rolling Stone, Record, and Spin as "youth targeted music books."

1910. As recently as February 22, 2002, according to the testimony of Smith in this case, Brown & Williamson has chosen to rely on magazine subscriber lists and publisher certifications, even while knowing that the actual readership of some magazines in which it advertises its cigarettes very likely has a youth readership of greater than 15%.

1911. Currently, Brown & Williamson continues to advertise in well known youth magazines such as Rolling Stone and Sports Illustrated. Moreover, Brown & Williamson itself recognizes the power and influence of such advertising. At her deposition in this case, Corky Newton, Brown & Williamson Vice President for Corporate Responsibility and Youth Smoking Prevention from November 1997 to January 2001, and who was experienced in media placement, stated that advertising is effective through repetitive viewing and that effective campaigns can be had by placing numerous advertisements in several small circulation magazines where it is

cheaper to advertise.

(v) R.J. Reynolds

1912. Internal R.J. Reynolds documents show that its advertising is directed at youth. R.J. Reynolds's placement of Camel advertisements, in particular, are intended to reach as many young people as possible. For example, a document entitled the "1999 Camel Media Recommendation Print Categories" recommended that Camel 'Core' Books should include Bikini, Jane, and Gear, because of their younger reader profiles.

1913. R.J. Reynolds continues to create advertisements directed at youth as shown by the following examples:

- (1) A 1999 advertising campaign for Camel cigarettes captioned "Viewer Discretion Advised." Among several treatments, advertisements depicted a "farmer's daughter" scene that included a young man being run off by the irate father of an attractive blond female. The caption reads "Viewer Discretion Advised." This ad contains content "ratings" that lampoon movie or TV rating codes: "SS. . . Satisfied Smoking FV. . . Farm Violence AN. . . Animal Nudity. Mighty Tasty!;"
- (2) A 2001 advertising campaign for Camel cigarettes captioned "Pleasure to Burn." Among several treatments, "Pleasure to Burn" advertising depicted attractive young men and young women smoking cigarettes or offering cigarettes, including series that are entitled "7 Pleasures of the Casbah," "Turkish Jade," "Flavors of the Exotic" and "Turkish Gold"
- (3) A 2001 advertising campaign for Winston cigarettes captioned "No Bull." Among

several treatments, "No Bull" advertising depicted attractive young men and young women smoking cigarettes or offering cigarettes often in circumstances involving irreverent humor or sporting events

- (4) a 1999 cover of Stuff that will appear opposite the column 'Is She Really Goin' Out With Him?' which features a famous model, actress or otherwise well known female 'favorite' that is married to an unlikely mate. . . . Stuff has promised that future issues will unearth even more women who deserve much better men." Patricia Fey Itterman, Media Director at R.J. Reynolds approved the ad, stating "Go for it!"

1914. As recently as November 1999, internal R.J. Reynolds documents show that it advertised Camel in magazines with readership percentages among minors 12-17 that substantially exceeded their actual percentage of the population (8%). These magazines include: Sports Illustrated (22%), Rolling Stone (28%), Spin (34%), Cosmopolitan (13%), Glamour (20%), Mademoiselle (23%), Car and Driver (17%), Hot Rod (30%), Motor Trend (21%), Popular Mechanics (17%), Cycle World (37%), Four Wheel and Off Road (32%), Guns and Ammo (23%), Motorcyclist (37%), Road and Track (22%), and Sport (39%).

1915. Internal R.J. Reynolds documents also show that it advertised Camel in a G.Q. insert in 1999 because its advertiser recognized that "Camel can create serious impact as sole advertiser adjacent to the NFL schedule . . . [and] the removable full year NFL schedule will provide Camel with extended brand presence in the households of target adult smokers 21-34."

1916. Even after Joe Camel and the MSA, R.J. Reynolds continued to use cartoons in

advertisements. Around March 1999, R.J. Reynolds used a magazine advertisement for Doral, containing a dog with comically exaggerated features, contrary to the MSA prohibitions on cartoons.

1917. In response to inquiry by the Attorney General of Ohio complaining of the Doral brand advertisements showing comically exaggerated dogs, R.J. Reynolds represented that "the 'Imagine Getting More' campaign in no way violates the MSA and that newspaper bags most assuredly are not a medium of outdoor advertising."

1918. While R.J. Reynolds publicly states that its advertising is targeted at "adults," it knows that its advertisements continue to have broad reach. In this case, Diane Burrows testified that if an advertisement is targeted to 18 to 20 year olds, it will likely do well among 21 to 24 year olds. She testified that the reverse is also true because there is only a few years' difference in the smokers' ages.

1919. [REDACTED]

[REDACTED]

1920. R.J. Reynolds continues to advertise in those magazines in which Philip Morris recently stopped advertising Marlboro and that have significant youth readership.

1921. Into 2001, R.J. Reynolds's continued to give itself wide berth to advertise in magazines with substantial youth readership. In June 2000, R.J. Reynolds revised its advertising

policy from placing its advertisements in magazines that had at least 50% adult readership to advertising in magazines having only two-thirds' readership 18 years or older, if the magazine measured readership data among audiences 12 years and older. This change resulted in only one fewer publication in which to advertise R.J. Reynolds's cigarettes.

1922. As of March 2001, R.J. Reynolds's stated new youth magazine policy is that only at three-quarters of total audience must be 18 years or older, for publications in which audience measurement data exists for total readership age 12 years and older. According to R.J. Reynolds, it adopted this rule rather than a more stringent standard other Cigarette Company Defendants have adopted. would have virtually removed R.J. Reynolds from print advertising.

1923. As of May 17, 2001, R.J. Reynolds was still advertising in approximately 100 publications, many of which are shown to have significant youth readership as shown by the MRI and Simmons' studies.

(7) Conclusion

1924. The actions of Defendants substantially contributed to widespread initiation of smoking behavior among children and adolescents and to the persistence of cigarette smoking among adolescents and adults in the United States.

F. Representations Regarding Independent Research

1925. In the 1954 "Frank Statement," and repeatedly since then, Defendants have promised the American public to (a) conduct and (b) disclose the results of disinterested and independent research on the health risks of cigarette smoking, touting that they were concerned about the claims of the adverse health effects of smoking and that they would do whatever was necessary to get to the truth on behalf of their consumers. This promise was false when made and has never been fulfilled.

1926. At the time that the promise was first made, and all times thereafter, the Cigarette Company Defendants have been part of a "Gentlemen's Agreement": (1) that any company discovering an innovation permitting the manufacture of an essentially "safe" cigarette would share the discovery with others in the industry; and (2) that no company would perform or commission in-house biomedical research on animals investigating the relationship between smoking and health. By its very terms, this agreement prevented the promised independent and disinterested research. The first component of this agreement quashed the incentive to perform such research and the second component of the agreement quashed the research itself.

1927. For years Defendants propounded a myth – that the Tobacco Industry Research Committee ("TIRC") and its successor the Council for Tobacco Research ("CTR") functioned as independent bodies pursuing independent research – as proof that they were meeting its promise to the American people. In reality: (a) TIRC/CTR was biased from its inception; (b) the Cigarette Company Defendants acted to influence TIRC/CTR's activities and its Scientific Advisory Board; and (c) the lawyers for the Cigarette Company Defendants controlled numerous

TIRC/CTR "Special Projects" and then attempted to clothe them with TIRC/CTR's alleged independence; and (d) TIRC/CTR's true purpose was to create positive public relations for the Cigarette Company Defendants.

1928. The research directed by the Center for Indoor Air Research ("CIAR"), an entity created and controlled by the tobacco industry, was not only used for litigation and public relations, but it also funded research designed not to find answers to health questions, but solely to attack legislative initiatives related to environmental tobacco smoke ("ETS") exposure. Lawyers specifically engineered and constructed scientific studies to get results that would be useful for public relations, litigation and legislative battles, as opposed to results that would assist the scientific community in further understanding the health effects of ETS exposure.

1929. Despite their promises, the Cigarette Company Defendants did not routinely employ or support scientists to conduct research into smoking and health. Lawyers working for the Cigarette Company Defendants watched and internally policed and restricted company research – all based on liability concerns. In the rare instances when they did conduct internal research into smoking and health, the Cigarette Company Defendants did so in secret and suppressed the results, in some cases by destroying documents and in other cases by taking other steps to shield documents and materials from discovery in litigation and from disclosure to the American public.

(1) The Promise: We, the Cigarette Company Defendants, Will Conduct Independent Research to Find the Truth About Smoking and Disease

(a) The Gentlemen's Agreement and the Frank Statement

1930. In December 1953, the Presidents of American, R.J. Reynolds, Lorillard, Brown

& Williamson, and Philip Morris, among others, met in the Plaza Hotel in New York. This was the first step toward the formation and implementation of the "Gentlemen's Agreement."

1931. Consistent with the agreements reached at the December 1953 meeting at the Plaza Hotel, on January 4, 1954, a full-page statement called "A Frank Statement to Cigarette Smokers" was disseminated by Defendants to the American public through 448 newspapers in the United States.

1932. The "Frank Statement" promised, in part, to conduct a search for the truth through independent outside and in-house research: "Regardless of the record of the past, the fact that cigarette smoking today should even be suspected as a cause of serious disease is a matter of deep concern to us. Many people have asked us what we are doing to meet the public's concern aroused by the recent reports. Here is the answer: We are pledging aid and assistance to the research effort into all phases of tobacco and health. This joint financial aid will of course be in addition to what is already being contributed by individual companies. For this purpose we are establishing a joint industry group consisting initially of the undersigned. This group will be known as TOBACCO INDUSTRY RESEARCH COMMITTEE. In charge of the research activities of the Committee will be a scientist of unimpeachable integrity and national repute. In addition there will be an Advisory Board of scientists disinterested in the cigarette industry. A group of distinguished men from medicine, science, and education will be invited to serve on this Board. These scientists will advise the Committee on its research activities" (emphasis added).

1933. In a December 1958 press release, Timothy Hartnett, TIRC Chairman, repeated promises made in the Frank Statement by assuring the public, "At its formation in 1954, the

Tobacco Industry Research Committee stated its fundamental position: 'We believe the products we make are not injurious to health. We are pledging aid and assistance to the research effort into all phases of tobacco use and health.' That statement and pledge are reaffirmed today by the members of the Tobacco Industry Research Committee."

(b) Continuing Parallel False Promises from Members of the Enterprise, Including the Tobacco Institute

1934. In a November 26, 1953 press release, American Tobacco Company set forth the following statement from Paul Hahn, President of American: "Believing as we do that cigarette smoking is not injurious to health, I feel that a statement of reassurance to the public should be made." Hahn also stated: "The American Tobacco Company is working at and supporting scientific research of a fundamental nature in this field, within its own laboratory and in independent institutions. It is our policy, within the limit of avoiding duplication of research, to extend our cooperation to projects where we believe that the researchers are approaching and will approach the subject without prejudice and without preconceived opinions on the problem to be investigated." Hahn further stated: "We are confident that long-range, impartial investigation and other objective research will confirm the view that neither tobacco nor its products contribute to the incidence of lung cancer. We wish the public to know these facts so that they themselves may be informed and also be in a position to deal intelligently with the subject when misinformation comes to their attention."

1935. Lorillard's 1953 Annual Report stated that: "We believe Lorillard products are not injurious to any one's health, but we accept as an inherent responsibility of our corporate citizenship the obligation to make the public's health our business. In addition to continuing a

program of research organizations, we have joined with other cigarette manufacturers in the formation of the Tobacco Industry Research Committee, which, we are confident, will get the true facts."

1936. The cigarette companies went so far as to claim that they would stop selling tobacco if they determined that smoking was harmful or would change the product in order to make certain that it was no longer harmful. For example, George Weissman, Vice President of Philip Morris, issued a statement that was printed in the Pioneer Press on March 31, 1954, that the cigarette industry would "stop business tomorrow" if it believed smoking was harmful.

1937. In a personal injury suit filed in federal court in 1954, R.J. Reynolds stated in interrogatory answers that the purpose of TIRC was to sponsor research into the health aspects of tobacco and to advance medical knowledge on smoking and disease.

1938. The Tobacco Institute, created by the Cigarette Company Defendants (except BATCo and Philip Morris Companies) and others as a joint trade association (see Section I.C. above), made similar statements on behalf of the Cigarette Company Defendants and in furtherance of the Enterprise. A November 3, 1963 Tobacco Institute press release stated that the industry was on a "crusade" to find answers to the "questions about smoking and health" and that it "should be a crusade neither for nor against tobacco. It is a crusade for research."

1939. On June 7, 1966, in a speech regarding Philip Morris's efforts to sponsor independent research, Joseph F. Cullman, President of Philip Morris, stated that "we feel a deep sense of responsibility to our cigarette smokers. All of us who work in this industry feel a deep concern over questions raised about cigarettes and health. We will not rest until we learn the

scientific facts that will provide solutions to the medical problems in question. We intend to leave no research question unanswered in our quest for the truth. What have we done to help find the truth? This industry has allocated nearly twenty million dollars for the support of research projects by independent scientists, through The Council for Tobacco Research - U.S.A., and through the American Medical Association Education and Research Foundation. If more funds are needed for this research, I am sure the industry will provide them."

1940. On December 24, 1968, Shook, Hardy & Bacon, a tobacco industry law firm, authored the following statement for Joseph Cullman, Chairman of the Board of Philip Morris: "The cigarette industry recognizes its responsibility to the American people. It is anxious to seek the answer to the question of whether cigarettes are in fact the cause of any human disease. It is unfortunate that emotional propaganda against cigarettes has been permitted to suppress scientific inquiry and proof."

1941. A 1969 Tobacco Institute brochure stated that "[f]rom the beginning, the industry's policy has been to work – as dispassionately as possible – toward a conclusive, scientific understanding of the actual facts, whatever these facts turn out to be."

1942. In 1970, the Tobacco Institute issued a public statement, published as an advertisement in major American newspapers, publicizing the research efforts of the cigarette industry. The statement, titled "The Question About Smoking and Health is Still a Question," read, in pertinent part: "[A] major portion of this scientific inquiry has been financed by the people who know the most about cigarettes and have a great desire to learn the truth . . . the tobacco industry. And the industry has committed itself to this task in the most objective and

scientific way possible. . . . 1115 reports in all. Through this work much valuable data have been produced about lung cancer, heart disease, chronic respiratory ailments and other diseases.

However, there's still a lot more to be learned. . . . There are eminent scientists who believe that the question of smoking and health is an open one and that research in this area must go forward.

From the beginning, the tobacco industry has believed that the American people deserve objective, scientific answers. With this same credo in mind, the tobacco industry stands ready today to make new commitments for additional valid scientific research that offers to shed light on new facets of smoking and health."

1943. A March 17, 1970 text from a television spot labeled "TI approved ad hoc" stated, "Today we in this industry support more impartial research on the vital question of tobacco and health than any agency of the Federal Government and more than all of the voluntary agencies combined. We have great confidence that the findings of this research will lead the way in providing fair and accurate information regarding cigarette smoking"

1944. Joseph Cullman, Chairman of Philip Morris and Chairman of the Tobacco Institute's Executive Committee, explained in remarks to the Overseas Press Club in New York City on April 30, 1970 that "[t]he tobacco industry has committed approximately \$35,000,000 for research on tobacco and health. We have established excellent research programs through the Council for Tobacco Research - USA, and the American Medical Association Education and Research Foundation. These two organizations have distributed research grants to some 300 scientists in medical schools, hospitals, and research institutions. The tobacco industry recognizes and accepts responsibility to promote the progress of independent scientific research

in the field of tobacco and health."

1945. On November 30, 1970, in a statement to the Executive Committee of CTR, Henry H. Ramm, General Counsel for R.J. Reynolds, stated that the purpose of the organization was

[t]o aid and assist research into tobacco use and health, and particularly into the alleged relationship between the use of tobacco and lung cancer and to make available to the public factual information on this subject. . . . When the products of an industry are accused of causing harm to users, certainly it is the obligation of that industry to endeavor to determine whether such accusations are true or false. Money spent for such purpose should not be regarded as a charitable contribution but as a business expense--an expense necessary to keep that industry alive. In view of the billions of dollars of annual sales of our industry our expenditures for health research have been of a minimal order.

1946. On December 1, 1970, Philip Morris, R.J. Reynolds, Brown &Williamson, Lorillard, and American placed an ad through the Tobacco Institute in the Washington Post entitled "The question about smoking and health is still a question." The ad stated that "in the interest of absolute objectivity," Defendants "[have] supported totally independent research efforts with completely non-restrictive funding." The ad further created the false impression that all research results had been published.

1947. In 1971, the Tobacco Institute issued a press release describing the "locked door" along the "statistical path" that linked smoking to ill health. In this press release, Tobacco Institute President Horace Kornegay noted that the tobacco companies would that year provide more than \$4 million "for support of independent scientific research," and declared: "Any organization in a position to apply resources in the search for those keys – and which fails to do

so – will continue to be guilty of cruel neglect of those whom it pretends to serve."

1948. On January 3, 1971, the Tobacco Institute issued a press release indicating that the tobacco companies would pool more than \$4 million for support of independent scientific research on smoking and health questions, adding, "so long as hundreds of thousands of non-smokers are crippled or die prematurely from cancer, heart disease and respiratory ailments, there is no excuse for continued failure of the voluntary health associations to apply every available dollar to the search for the keys to these scourges."

1949. An undated draft of "Tobacco Industry Position -- Smoking-and-Health Research" stated, in part: "A scientific controversy exists regarding smoking and health. The entire question is still an open one, and it is essential for research to continue." The document further stated that the industry had for the past seventeen years assumed a responsible role in the search for scientific knowledge and had conducted excellent research through CTR.

1950. On August 16, 1976, Philip Morris Vice President James C. Bowling explained in an interview in London that "it's up to us morally to find the answers. And that's why we're spending more on cigarette health research than the Federal government." He further stated, "They [CTR] decide where the research needs to be done. They allocate the money, we read the results when it's printed in the literature. . . . We have no influence on them whatsoever."

1951. A 1977 R.J. Reynolds document on the subject stated "Objective: What we want to convey can almost be summarized in one sentence: The smoking and health controversy is just that – it is a controversy," and that "[t]he smoking and health controversy is a very important question; our industry has been - and is, of course, trying to provide the answer. If there ever

should be any component or components, as found in smoke, that can be proven to be, or contribute to be, a cause of any disease in man, we will of course, take them out."

1952. In 1977, Addison Yeaman, Brown & Williamson's General Counsel, stated in a speech: "My assignment today is to inform you of the measures the tobacco industry has taken to discharge its obligation to investigate the question of whether the use of tobacco in cigarettes is causative of, or materially contributes to a number of diseases that constitute major health problems throughout the world. . . . The companies fully recognized that the industry has an absolute duty and a heavy obligation to seek to determine what if any part its products play in disease. . . . I am utterly secure in saying to you that the tobacco industry recognizes its responsibility and its duty and that it will continue its every effort and at whatever cost to finding the answer to the question 'what part, if any, does tobacco play in human diseases.'"

1953. In 1978, the Tobacco Institute publication "ON SMOKING" addressed 21 questions. In response to the question "Do the tobacco companies control the research they sponsor?", it claimed, "Absolutely not! The commitment of the tobacco manufacturers to resolve the smoking and health controversy has never been fully appreciated. Grants are made with no strings attached except to pledge to apply the money to legitimate scientific research. Each researcher is free to publish his study results, whatever they may be."

1954. A document created circa 1979, facially unattributed but produced from the files of both Philip Morris and the Tobacco Institute, listed various issue statements in a question-and-answer format for when individuals associated with the tobacco industry became "confronted by thought-provoking questions regarding smoking and health, and other industry-related issues."

One series of promulgated questions and responses related to "Scientific Research," and provided as follows: "Q: Is the tobacco industry doing anything to help resolve the smoking and health controversy? A: It certainly is. As of June 1, 1979, the tobacco industry had provided \$82 million to independent research projects. Interestingly enough, in many years the industry's funding of smoking/health research has surpassed funding by any government department as well as the combined grants of the major voluntary health organizations." "Q: Don't the tobacco companies encourage the publication of only the "favorable" results of the research they fund? A: Of course not. The tobacco industry is committed to resolving the smoking and health controversy. This will only be accomplished by solid scientific research. The industry is proud to supply grants for worthy research and this is done on a no strings basis. Grantees have complete freedom to publish, whatever the results."

1955. On December 31, 1981, the Tobacco Institute published "Tobacco Industry Research on Smoking and Health: A \$104 Million Commitment" It noted,

[s]ince the first questions were raised about smoking as a possible health factor, the tobacco industry has believed that the American people deserve objective scientific answers. The industry has committed itself to this task. . . . In the interest of strict objectivity, the tobacco industry has supported independent research efforts with completely nonrestrictive funding, mainly through the Council for Tobacco Research. . . . However, there is still a lot more to be learned . . . questions of smoking and health are unresolved . . . the tobacco industry stands ready today to make new commitments for additional scientific research that may shed light on the question of smoking and health.

The same promise was repeated the next year in the Tobacco Institute's publication "Tobacco Industry Research on Smoking and Health: A \$111 Million Commitment;" and in

1984, the Tobacco Institute published its annual report entitled "Tobacco Industry Research on Smoking and Health; a \$120 Million Commitment."

1956. The Tobacco Institute revised and republished "In the Public Interest – Three Decades of Initiatives by a Responsible Cigarette Industry", which originally had been published in 1986. It noted: "In 1988 pursuing its effort to advance scientific knowledge, tobacco industry support led to establishment of the Center for Indoor Air Research (CIAR) to award funds to independent investigators in the field of air quality in enclosed spaces. Meanwhile, after more than three decades of support, CTR alone had committed more than \$132 million to smoking and health research."

1957. James F. Glenn, Chairman, President and Chief Executive Officer of CTR, stated before Congress on May 25, 1994, that CTR "sponsors research into questions of tobacco use and health and makes the results of that research available to the public. . . . Council grantees are assured complete scientific freedom in conducting their studies. . . . Publication of research results is encouraged in all instances. He concluded by stating that "[t]he SAB does not consider, for any type of grant application (original, noncompeting renewal or competing renewal), whether any of the investigator's prior research produced results thought to be favorable or unfavorable to the tobacco industry. Industry sponsors exercise no control over the decision to fund a particular grant application or with respect to the publication of the results of any sponsored research."

1958. A January 22, 1997, BATCo document states: "[S]cience has yet to identify a genetic mechanism by which any substance in tobacco smoke causes lung cancer in humans.

Enormous amounts of research continue in this area, including work funded by British-American Tobacco. . . . We continue to support academic research, particularly in the biological sciences, in the pursuit of an explanation of the relationship between smoking and lung cancer, and in the expectation that such an explanation could lead to changes in our product."

1959. A BATCo pamphlet dated January 22, 1997 entitled "British-American Tobacco's Positions on Cigarette-Related Issues" asserted that BATCo "believes that smoking is an important risk factor for lung cancer" and that smokers were "more likely" to contract lung cancer than nonsmokers, but did not acknowledge that the vast majority of lung cancer occurs in smokers. BATCo stated that it responded to concerns about smoking and health in the 1950s by funding "independent research into the questions of causation and the mechanism of diseases associated with smoking" and "promptly began product research to respond to changing consumer tastes and demands influenced, in part, by reports in scientific literature and popular media about smoking and health" (emphasis added). BATCo also stated that "[i]n addition to its substantial product research effort, British-American Tobacco has provided research funding to independent external researchers wishing to investigate the role, if any, that smoking plays in the causation of disease. This effort continues today." The pamphlet further stated: "Enormous amounts of research continue in this area, including work funded by British-American Tobacco. . . . We continue to support academic research, particularly in the biological sciences, in the pursuit of an explanation of the relationship between smoking and lung cancer, and in the expectation that such an explanation could lead to changes in our product."

1960. On June 12, 2000, Dr. Sharon Boyse (now Dr. Sharon Blackie), a high-ranking

scientist with Brown & Williamson and formerly with BATCo, participated in an "e-chat" on the Brown & Williamson website. Among other things, Dr. Boyse stated: "We have been sponsoring medical and scientific research into the product since the 1950s and unfortunately, what we are finding now, is that since it's very politically incorrect to accept money from tobacco companies, we are finding that it's very difficult to find people who will allow us to fund research of this kind. We believe that it's very important to do so, but it's getting more and more difficult to achieve."

1961. Defendants' representations concerning their public commitments continue to this day. Philip Morris's internet website, www.philipmorrisusa.com, states in part as follows:

Our goal is to be the most responsible, effective, and respected developer, manufacturer and marketer of consumer products, especially products intended for adults. . . . We will support our Mission by proactively engaging with our stakeholders to enhance our ability to act in a way that is consistent with society's expectations of a responsible company.

The same Philip Morris web site states: "We will be successful in achieving our goal when we: . . . Communicate Health Effects of Our Products – Communicate openly, honestly and effectively about the health effects of our products."

1962. BATCo recently prepared a "Social Report" and published the report on its internet website, www.bat.com. The "British American Tobacco Social Report 2001/2002" notes that "The Scientific Research Group, comprising scientific experts from our Group companies' worldwide Research & Development facilities, meets regularly to review, with input from independent scientific experts, developments in the science of smoking and health and to consider external research proposals for funding in this field. External requests for Scientific

Research Group funding are granted when the research proposed is relevant, of sufficiently high quality and where the area of investigations has not previously been comprehensively explored. We give independent researchers freedom to publish their findings with no editorial constraints."

(c) Defendants' Use of TIRC/CTR

1963. Defendants claimed that they would, in part, fulfill their promise to research and publish their findings about smoking and health by funding independent research through the TIRC/CTR. In the "Frank Statement" of January 1954 and repeatedly over the years since then, the Defendants told the public, Congress, federal agencies, and the courts that TIRC/CTR's purpose was to fund and to perform independent scientific research on the issue of smoking and health.

1964. A 1954 TIRC statement published in the Louisville Courier Journal announcing the appointment of Timothy V. Hartnett as full-time Chairman of TIRC contained a statement from Hartnett that "[t]he tobacco industry is determined to find answers to the public's questions about smoking and health. The appointment of a full-time chairman completes an organization dedicated to carrying on comprehensive and objective scientific and statistical research to establish the facts and report them to the public. . . . The millions of people who derive pleasure and satisfaction from smoking can be reassured that every scientific means will be used to get all the facts as soon as possible."

1965. A document entitled "Statement Concerning the Origin and Purpose of the Tobacco Industry Research Committee and Its Proposed Functions" stated that the industry formed TIRC "in the interest of the public as well as the industry to meet the challenge raised by

widely publicized reports in the press, purporting to link tobacco smoking with the cause of lung cancer." TIRC was created to address "the appearance of certain publications claiming an established relationship between cigarette smoking and lung cancer." The document further stated:

In the light of the foregoing agitation and in the absence of authoritative findings, there is a responsibility on the part of the management of the tobacco manufacturers and others engaged in the tobacco industry to aid in the final determination of this controversy. It is the earnest wish of the industry to encourage competent scientific authority to find ultimate facts which will dispel the present confusion and to communicate authoritative factual information on the subject to the public.

1966. On June 15, 1954, at a TIRC press conference discussing the organization's goals, Dr. Clarence Cook Little, Scientific Director of TIRC, stated that

[w]e want to learn all we can. . . . We haven't any axe to grind. . . . We respect differences of opinion. . . . This is not a partisan effort. We are not trying to prove anything. We are trying to find out the facts. . . . I don't have any personal preconceived notions at all. I am just anxious to find out everything we possibly can. . . . We would not pick any man to be supported in whom we didn't have confidence enough to let him be a scientist. He will be left free. He will not be bossed. He will not be directed.

1967. In a TIRC press release dated July 28, 1954, Dr. Little stated:

In order to find conclusive facts concerning questions that have been raised about tobacco use and health . . . the Scientific Advisory Board of the Tobacco Industry Research Committee has adopted a three-fold policy which will direct research on: 1) Study of the physical and chemical composition of tobacco and accompanying products. 2) Study of tissue changes in humans and animals under various conditions. 3) Study of smoking and other tobacco habits and of the emotional and physical make-up of smokers.

The press release concluded by stating that the purpose of the TIRC was "to finance objective research on tobacco and health."

1968. On February 1, 1964, the by laws of TIRC were amended to provide that the name of the organization be changed to "The Council for Tobacco Research-U.S.A." The purposes and objectives remained the same as in the 1954 by laws, namely, to aid and assist research into tobacco and health, and particularly into the alleged relationship between the use of tobacco and lung cancer.

(2) The Reality: CTR Was a Front That Failed to Deliver on the Industry's Promise to Conduct Independent Disinterested Research

(a) Throughout TIRC/CTR's Existence, It Did Not Seek to Fulfill the Defendants' Promise to Conduct and Disclose Independent Research

1969. CTR provided a mechanism for the tobacco industry to say that it was conducting independent research. CTR was used, however, as a public relations tool to conduct self-serving research to support the tobacco industry's litigation position and to provide witnesses in lawsuits, before Congress, and in other regulatory actions. CTR did not conduct research designed to answer the central question of great interest to the public, namely, whether there was a link between smoking cigarettes and adverse health effects such as cancer and other diseases.

1970. Cigarette company executives and counsel (both in-house and outside) exercised substantial control over the operating decisions, not only over their respective companies, but also of CTR, and frequently intervened in their business decisions.

1971. CTR funded research grants through its Scientific Advisory Board. CTR also funded certain projects outside of the approval of its Scientific Advisory Board – these projects,

CTR Special Projects, were chosen because of their usefulness to the tobacco industry. These CTR Special Projects were not independent at all, but rather, targeted to reach findings favorable to the tobacco industry.

1972. Even before the formation of the CTR's Scientific Advisory Board, TIRC issued a press release stating that "[m]any noted doctors and cancer research authorities deny that there is any proof establishing a link between smoking and lung cancer."

1973. On June 15, 1954, TIRC held a press conference in New York City during which Dr. Clarence Cook Little fielded questions from members of the press. He candidly admitted his lack of impartiality:

DR. LITTLE: I am ultraconservative about cause and effect relationships. I have seen too many conclusions drawn that tend to smother further study. I just want to know more about it than is now known. . . . I don't feel that it is a proven cause and effect relationship. Now, whether it will be or not is in the future. . . .

QUESTION: Do you feel that substantial evidence points to a relationship between cigarette smoking and lung cancer?

DR. LITTLE: I am not convinced of that

QUESTION: You are not convinced the evidence is substantial?

DR. LITTLE: I am not convinced that the evidence is satisfactory to claim a cause and effect relationship.

1974. However, on October 19, 1954, Little advised TIRC's membership concerning the Scientific Advisory Board's "viewpoint": "He declared that both he and the members of the Board were aware of the attacks which had been made on tobacco for over 200 years, and wished to build a foundation of research sufficiently strong to arrest continuing or future attacks."

1975. Little delivered dozens of speeches and written statements airing the industry's

position on smoking and health issues and attacking the scientific work tending to establish the causal connection between smoking and disease.

1976. On April 14, 1954, TIRC published "A Scientific Perspective on the Cigarette Controversy," which reaffirmed the Frank Statement and set forth a number of brief statements from various scientists in an attempt to show that there was no consensus on the link between smoking and cancer.

1977. On June 7, 1955, Little appeared on Edward R. Murrow's "See It Now" television show and was asked: "Have any cancer-causing agents been identified in cigarettes?" He replied, "No. None whatever, either in cigarettes or in any product of smoking, as such."

1978. TIRC continually attacked the mounting evidence of the effect of smoking on disease. For instance, an undated TIRC press release denounced Dr. Alton Ochsner's book (Ochsner was one of the first scientists to investigate the relationship between cigarette smoking and lung cancer) as "[j]ust another propaganda device in the anti-tobacco crusade which the author has been carrying on for years."

1979. On June 13, 1955, TIRC Chairman Timothy V. Hartnett claimed that "[n]obody has produced evidence proving that cigarette smoking causes human lung cancer."

1980. In addition, on July 31, 1958, Hartnett reemphasized that: "The position of this country's cigarette industry is unchanged because the facts have not changed. Scientific evidence simply does not support the theory that there is anything in cigarette smoke known to cause human lung cancer."

1981. The SAB acknowledged in November 1957 that the "French have done a number

of statistical inquiries that show a correlation between tobacco consumption in definite relation to the increase of lung cancer, to an increase of cancer of all sites and to other ailments. They see no alternative to giving these a causative interpretation." Despite this, TIRC did not make public these conclusions.

1982. Little contended that no studies had been conducted on tobacco smoke because it had never been demonstrated to be carcinogenic.

1983. TIRC never developed an approach to carcinogenesis and tobacco that could resolve the question of whether harms were induced by cigarette smoking. Although some researchers explored alternative hypotheses, the TIRC did not pursue direct research on cigarettes and disease. Rather than directly addressing the constituents in tobacco smoke and their demonstrated effect on the human body, the TIRC directed the predominance of its resources to alternative theories of the origins of cancer centering on genetic factors and environmental risks. Most research projects funded through its Scientific Advisory Board were irrelevant to the immediate questions of the harms of tobacco. At the same time, Little and the TIRC used truisms such as the "need for more research" and "how much more there is to learn" to deflect attention away from what was known.

1984.

[REDACTED]

[REDACTED]

1985. A 1968 CTR memorandum stated that "two points of view apply to all the work of

[CTR]. . . . The problem therefore is to keep these two general factors – complexity of the diseases and the importance of the Host Factor – continually in mind, and to conduct the various specific pieces of research which we support in such a way as to add to the increasing body of experimental evidence which justifies this attitude [i.e., that causes other than smoking are to blame]."

1986. In January 1968, Brown & Williamson General Counsel Addison Yeaman wrote a memo about whether to alter the "long established policy of CTR, carried out through SAB, to 'research the disease' as opposed to researching questions more directly related to tobacco."

1987. The joint industry research conducted through CTR was admittedly not intended to get to the truth about smoking and health. As explained by Lorillard Research Director Alexander Spears in a 1974 memorandum to Curtis H. Judge, Lorillard Chief Executive Officer:

Historically, the joint industry funded smoking and health research programs have not been selected against specific scientific goals, but rather for purposes such as public relations, political relations, position for litigation, etc. . . . In general, these programs have provided some buffer to public and political attack of the industry, as well as background for litigious strategy.

1988. Robert K. Heiman, CTR, wrote to Addison Yeaman in 1977 stating:

For many years after the T.I.R.C. was established in 1954 we were able to say that "all grants are made upon recommendation of an advisory board of independent doctors, scientists and educators. Recipients of grants are assured complete scientific freedom in conducting their investigations." Indeed, this point was made a part of our pledge to the public in full-page advertisements headlined "A Frank Statement to Cigarette Smokers" and "Nine Important Facts about Smoking and Your Health." The latter ad

specifically said: "A Scientific Advisory Board of outstanding doctors, scientists and educators has complete and free rein in directing the research program and awarding the money for grants." This we can no longer say since what is called "directed" or "contract" research has been brought into the picture . . . I believe the current movement toward contract research is a violation of our advertised pledges to the public and I also believe industry support of objective and independent scientific research is of cardinal importance. . . .

1989. On November 30, 1977, Robert Seligman, Vice President of Research and Development at Philip Morris, sent an internal memo to Clifford Goldsmith, Executive Vice President of Operations, concerning a memo he received from Thomas Osdene, Director of Research at Philip Morris, on November 29, 1977. The subject of that memo was a CTR program review session Osdene attended on November 22. Osdene claimed, "I was amazed at the trend that the CTR work is taking. For starters, Dr. Donald H. Ford, a new staff member, makes the following quote[:]: 'We accept the fact that nicotine is habituating.' It is my strong feeling that with the progress that has been claimed, we are in the process of digging our own grave. . . . I am very much afraid that the direction of the work being taken by CTR is totally detrimental to our position and undermines the public posture we have taken to outsiders."

1990. A memorandum written in November 1978 from Seligman contained the following historical account: "Bill Shinn [attorney at Shook, Hardy & Bacon] described the history, particularly in relation to CTR. . . . It was set up as an industry "shield" in 1954. . . . CTR has helped our legal counsel by giving advice and technical information, which was needed at court trials. CTR has provided spokesmen for the industry at Congressional hearings. The monies spent on CTR provides a base for introduction of witnesses."

1991. A Philip Morris interoffice memorandum from Osdene to Seligman dated January 8, 1979, regarding "areas of research supported by CTR" stated: "I consider the production of lung cancer in tissues of animal laboratories a most undesirable undertaking from the industry's point of view – especially since everyone has failed to do this except in some very special cases."

1992. Similarly, on January 23, 1979, another Philip Morris "confidential" interoffice memorandum from Seligman stated: "In the 'cancer-related' studies (page 1), CTR continues to pursue the goal of producing lung cancer in laboratory animals. This is most undesirable from the industry's viewpoint since everyone has failed to do this, except in some very special experiments."

(b) CTR Used Its Scientific Advisory Board as a Smokescreen

1993. By directing attention to the CTR's Scientific Advisory Board ("SAB"), Defendants were able to appear to be furthering independent research efforts while their true aim was to preserve and foster false doubt about the adverse health effects of smoking in order to dissuade existing smokers from quitting and encourage non-smokers to start.

1994. Members of the SAB were initially screened and selected by representatives of Hill & Knowlton, Defendants' attorneys, and Cigarette Company Defendants' research directors.

1995. Defendants and their agents represented in public and in court that the SAB grant process functioned independently from industry influence and was the mechanism by which they were fulfilling the obligations they had undertaken in the "Frank Statement" and elsewhere. In fact, Defendants "deliberately isolated" the SAB from the activities ongoing in other parts of

CTR so that the SAB could be held out as a group of independent scientists, while the rest of CTR operated under Defendants' control.

1996. In 1965, CTR representative Robert Hockett told Congress that "[t]he SAB was asked to specifically plan and direct the committee program of grants-in-aid research, and was assured complete freedom of action in every respect. This was and still is the case. . . . The advisory board has established a policy of insuring investigators full freedom. This applies to the conduct of the research, the results of the study and publication of those results."

1997. Hockett, however, played a role in planning and selecting researchers to do specific projects and in screening incoming grant applications before they were circulated to SAB members.

1998. An unknown number of incoming grant applications were screened by lawyers and never circulated to SAB members. Some of these grant applications concerned research into nicotine and the central nervous system. They were screened and suppressed in a effort to prevent regulation, as a drug, of tobacco and cigarettes by the Food and Drug Administration.

1999. TIRC began funding research relating to nicotine in its first years of existence. As early as 1956, the organization reported the awarding of research grants in the area of nicotine pharmacology. The 1960s and 1970s saw a continuation of TIRC support for research that dealt with the effects of nicotine on the central nervous system.

2000. On June 1, 1970, a private conference was held in CTR's offices to discuss with several CTR grantees the 'Effects of Nicotine and/or Smoking on the Central Nervous System

("CNS").' On June 17, 1970, Philip Morris researchers Helmut Wakeham and William Dunn called CTR offices to suggest planning a scientific conference on the benefits of smoking. CTR Associate Scientific Director Robert Hockett and others at CTR "reacted quite favorably to this suggestion" since the private June 1st conference "had brought out several effects in this area that can be regarded as beneficial." On July 1, 1970, Hockett sent a letter to R.J. Reynolds Vice President and General Counsel Henry H. Ramm suggesting, and requesting financing for, such a conference to be held in the West Indies.

2001. In October 1976, Dr. H.S. Tong, a Lorillard pharmacologist, submitted a report to Lorillard titled "The Pharmacology of Smoke-Dose Nicotine, A Review of Current Literature" and recommended that "in order to gain knowledge in this area [nicotine's 'role in the smoking habit'], smoke doses of nicotine should be employed in studies and its central nervous system effects (CNS) should be studied."

2002. At a November 1977 CTR meeting, CTR Associate Research Director Donald Ford presented a paper titled "Prospectives for CTR in Relation to CNS Studies" describing possible areas of investigation regarding the effects of smoking and nicotine on the central nervous system. At that same meeting, Dr. Leo Abood, who had been receiving CTR grant funds for three years, presented a paper titled "Nicotine and Related Substances and the Central Nervous System."

2003. On April 4, 1978, Ernest Pepples, Brown & Williamson Senior Vice President and General Counsel, wrote a letter to Joseph Edens, Brown & Williamson President; Charles McCarty, Brown & Williamson Chairman and CEO; I. W. Hughes, Brown & Williamson Senior

Vice President of Research & Development; and DeBaun Bryant, Brown & Williamson Vice President and General Counsel, regarding American Tobacco's conclusion "that part of the central nervous system/nicotine work poses a question with respect to the assurances which the companies gave to the Justice Department to the effect that none of the scientific work at CTR would have commercial application. Philip Morris and Lorillard concur in the view that some of the central nervous system (CNS) work has commercial overtones, specifically work which would lead to blocking agents or substitutes for nicotine." The Committee of Counsel worked out a compromise: the ongoing CNS work under contract would continue, but before CTR embarked on any new work, research applications in the CNS/nicotine area would be pre-screened before being submitted to the CTR SAB.

2004. At a special meeting on April 21, 1978, CTR's Board of Directors adopted the following resolution: "RESOLVED, that funds may be committed to any research project only when, in the opinion of the Corporation's legal counsel, that commitment is within the scope of the Corporation's legally permissible activities."

2005. Beginning in April 1978, W. Thomas Hoyt, CTR's Executive Vice President and then President after October 1980, determined which grant applications should be reviewed by CTR's legal counsel, Jacob & Medinger. At least eight CNS research proposals were reviewed by CTR lawyers and not sent on to the CTR SAB. At least fifteen additional CNS research proposals were reviewed by lawyers without being sent to, or before copies were sent to, the full SAB for their review, or even after review of those same proposals by the SAB Executive Committee. Some SAB members reacted angrily to being told that a lawyer would review

certain grant applications.

2006. Lorraine Pollice, Assistant Treasurer and Secretary of CTR, stated that CTR maintained a "cases and inquiries log" which indicated whether a preliminary application related to CNS/nicotine research had been sent to CTR's lawyers for review. CNS/nicotine grant applications were screened by lawyers from 1978 to 1982.

2007. A Philip Morris memorandum conceded that Defendants' concerns about research into the pharmacological action of nicotine arose from fear of regulation, i.e., "the increasingly favorable prospects for the success of a legislative effort to transfer authority for the regulation of tobacco manufacture to a Federal agency (FDA) known to have interests and powers antithetical to the interests of the industry." While this legislative effort was unfolding, any action on the part of the tobacco industry, such as "research on the psycho-pharmacology of nicotine, which implicitly or explicitly treats nicotine as a drug, could well be viewed as a tacit acknowledgment that nicotine is a drug."

2008. Contrary to the public claim that the companies were seeking to get to the bottom of the smoking and health controversy, SAB-funded research steered far away from smoking and health issues toward other questions, including examinations of other potential causes of cancer. Defendants were aware that CTR's research did not fulfill their commitment to the public. As one industry document maintained, "Most of the TIRC research has been diffuse and of a broad basic nature not designed to specifically test the anti-cigarette theory."

2009. Consequently, the research that was funded through the SAB addressed general

issues of cancer causation and incidence – without a focus on smoking or its role in causing disease, or on the relationship between smoking and disease or on other science that might result in findings that were harmful to defendants. Other parts of TIRC/CTR funds also were not used for objective research on the link between smoking and disease.

2010. On March 16, 1978, Arthur J. Stevens, Lorillard Vice President and General Counsel, prepared a conference summary of the industry's concerns about whether the CTR should be an independent organization. Stevens wrote: "Does Industry still want/need independent, objective SAB and Staff." He also wrote: "American and other companies dismayed at direction of CTR research. (Heimann letter) opposed to contract research. American (and apparently others) convinced that Gardner and Kreisher are committed to attempting to demonstrate how tobacco smoke causes disease, rather than whether it causes disease. (Yeaman disputes this impression). Question whether CTR can be said to be independent when it is conducting its own proposed research, through contracts, rather than through grants."

2011. General Counsel Addison Yeaman of Brown & Williamson wrote on January 12, 1968, regarding the requirements in finding a successor as Chairman of CTR upon the retirement of Hartnett and the need to reorient CTR from more basic research to that with specific application to tobacco. He admitted, "Review of SAB's current grants indicates that a very sizable number of them are for projects in what might be called 'basic research' without specific orientation to the problem of the relationship of the use of tobacco to human health."

(c) In Reality, CTR Was Controlled by Industry Executives and Lawyers for Their Own Purposes

(i) General Control of CTR

2012. Defendants, through their attorneys and other agents, took an active role in controlling TIRC/CTR's research and other priorities.

2013. Despite all of their efforts to channel research away from anything that might be damaging to the industry, some of CTR's research efforts, however, did generate results showing that smoking causes disease. In those instances, the evidence shows that Defendants actively sought to restrict, and did restrict, the dissemination or publication of adverse research.

2014. As a cable sent on July 3, 1963 from Addison Yeaman, Brown & Williamson's Vice President and General Counsel, indicated, William Hoyt, then Executive Secretary of CTR, had

agreed to withhold disclosure [of] Battelle report to [CTR] members or SAB until further notice from me. Finch [CEO of Brown & Williamson] agrees submission Battelle or Griffith developments to Surgeon General undesirable and we agree continuance of Battelle work useful but disturbed at its implications re cardiovascular disorders. We believe combination Battelle work and Griffith's developments have implications which increase desirability [of] reevaluation [of CTR] and reassessment fundamental policy re health.

2015. On November 18, 1965, Liggett counsel Frederick Haas wrote a memo titled "CTR - U.S.A." discussing the proposed budget for 1966 for studies in "Whole smoke," "Oral Cavity," and "Epidemiology." The author noted,

[a]s a result of a conference held by the General Counsel, we broached another subject with the Council staff. In view of the present posture of the industry with Congress, FTC, etc., it was suggested that the organization of the Council be further implemented by creating an Industry Projects Advisory Board, which could feed suggestions for research to the staff. [The Board] would consist of General Counsel with the aid and advice of the Ad Hoc Committee and . . . the staff of the Council . . . would evaluate whether the project would be likely to obtain SAB approval.

2016. A 1966 Brown & Williamson document attaching meeting of General Counsel minutes from December 17, 1965, described how CTR research proposals were reviewed and approved by lawyers: "The Ad Hoc Committee submitted its 'priorities' selected from the recommendations for specific research presented to General Counsel at an earlier meeting. . . . The Ad Hoc Committee divided the proposals referred to into three categories: Category A: Projects essentially of an "adversary" value. These are considered to have a relatively high priority. Category B: Research having a generally defensive character. Category C: Basic research."

2017. During the 1970's, CTR's Industry Research Committee – comprised of attorneys and public relations employees of the cigarette manufacturers – considered what research CTR should conduct and developed projects. A memo dated November 4, 1978, from Janet C. Brown, an attorney for American Tobacco, explained that the industry had "moved closer to becoming the arbiter of the amount of CTR research done (by reason of its control of CTR's budget) and the type of research done (by reason of the changes in scope and direction of research, as dictated by [Addison] Yeaman)."

2018. On December 28, 1970, CTR drafted a letter agreement among CTR and five participating tobacco companies (American, Brown & Williamson, Liggett, Philip Morris, and R.J. Reynolds) on an information storage and retrieval system for counsel, which would be administered by CTR. See Section I.I above.

2019. A March 23, 1973 handwritten note from Philip Morris Director of Research and Development Helmut Wakeham to CTR Scientific Director Robert C. Hockett, rated forty-four scientists as to "which ones might be the greatest benefit to the [tobacco] industry." The note ended, "Use [the ratings] for what you think they might be worth and throw the paper away."

2020. On August 23, 1973, Edwin J. Jacob wrote, "CTR has determined that it does not wish to participate in Homburger's sub-committee effort at establishing smoking machine standards for biological smoking . . . we might be in an unfortunate posture if CTR did not participate and the committee formulated standards at substantial variance with CTR's ultimate results. After some discussion of the details, it was agreed that Hockett would talk to Homburger with the objective of getting Homburger to postpone his effort."

2021. There were instances when Defendants encouraged scientists to change the wording of their proposed publications to downplay the significance of the research findings. For example, in the summer of 1973, CTR Research Director Dr. Robert Hockett and CTR lawyer Ed Jacob traveled to Dr. Freddy Homburger's summer home in Maine and requested that Homburger modify and moderate wording, in the proposed publication of Homburger's research results, from "invasive cancer" to "pseudo-epitheliomatous hyperplasia, a euphemism of lesions preceding cancer." At that same meeting, Ed Jacob threatened to cease all further funding if

Homburger published his findings of cancer of the larynx without the changes. In 1974, Dr. Homburger compromised on the language and published his results using the term "micro invasive cancer" instead of "invasive cancer."

2022. There were also instances when Defendants attempted to stifle the dissemination of a scientist's opinions. In April 1974, CTR's public relations advisor Leonard Zahn "got [Dr. Homburger's] press conference killed without his knowing why or how." In a confidential memorandum from Zahn to CTR President Henry Ramm and CTR employee W. Thomas Hoyt, Zahn described how he found out that a press conference had been scheduled for Homburger during the American Society of Experimental Pathology (ASEP) meeting in Atlantic City at which Homburger was going "to tell the press that the tobacco industry was attempting to suppress important scientific information about the harmful effects of smoking" and "was going to point specifically at CTR." Zahn spoke unfavorably about Homburger with his "long-time friend" Judy Graves, the ASEP public information officer, and a few hours later, Graves called Zahn at his hotel; gave Zahn permission to arrange to cancel the press conference (which he did); and called Homburger and told him the press conference had been canceled because of "scheduling difficulties in the press room." Zahn also spoke with the head of the press room so that when Homburger came to the press room the day after presenting his paper at the meeting, he was given a cordial welcome and "nicely hastened out the door." Zahn ended his memo with a post script: "P.S. I doubt if you or Tom will want to retain this note."

2023. In 1978, Sheldon Sommers, Chairman of the CTR Scientific Advisory Board, complained to William Gardner, the Scientific Director of CTR, that he [Sommers] was unable

to understand the legal counsel he was being given. The clear import of Sommers' letter was that the CTR lawyers were controlling tobacco research by CTR based upon legal considerations. Sommers also stated, "I think CTR should be renamed Council for Legally Permitted Tobacco Research, CLIPT for short."

2024. There are also numerous industry documents demonstrating correspondence among Defendants concerning what research CTR should and should not conduct. For example, a November 13, 1978 Philip Morris "confidential" interoffice correspondence recommended long term plans for CTR, stating that "CTR should be controlled both legally and scientifically by representatives of the industry. . . . CTR should fund work largely by means of contracts, thus reserving the right to control publications which might be detrimental to the industry . . . [t]he long-term scientific program should be carefully planned such that the results obtained should not be able to harm the industry . . ." The memorandum further specified "Subjects to be Avoided – 1. Developing new tests for carcinogenicity. 2. Attempt to relate human disease to smoking. 3. Conduct experiments which require large doses of carcinogen to show additive effect of smoking."

2025. An undated slide presentation was drafted on five "Funding Sources of Tobacco Industry Research" focusing on the 1980-82 expenditures, but mentioned research programs covering dates extending from 1971 to 1986. The five funding sources were: (1) Council for Tobacco Research-U.S.A., Inc.; (2) CTR Special Projects; (3) Special Research-Multiple Companies; (4) Individual Companies; and (5) Special Account No. 4 (litigation/legislation oriented). Recommendation 3 stated: "Be prepared to increase industry funding of special

projects to address scientific problems and develop witnesses."

2026. On April 23, 1990, Charles Wall of Shook, Hardy & Bacon sent a letter to Arthur J. Stevens, General Counsel of Lorillard, advising on a possible name change for CTR, appointment of non-tobacco industry scientific board members, and use of a public relations firm so that CTR would have a more favorable perception in litigation. He hoped "it will be more difficult for plaintiffs to mischaracterize the true independence and objectivity of the scientific research effort."

2027. On October 15, 1991, Shook, Hardy, and Bacon attorney Bill Allinder wrote to transmit the proposed CTR Defensive Statement "to be used in the event further inquiries are made about the articles appearing in the American Journal of Public Health." Allinder went on to comment about the draft and stated he and Bob Northrip [a colleague at Shook, Hardy & Bacon] "do not object to [the] changes except for the sentence [] added to the second paragraph: 'CTR's grantees publish the results of their research in peer reviewed scientific journals.' Taken at face value, this statement is not entirely accurate."

(ii) CTR Special Projects

2028. While Defendants promoted the SAB as an "independent" board, they funneled funds through TIRC/CTR to conduct non-SAB approved research projects that were not objective or independent as the industry had promised, but instead were designed to conclude that there was no link between smoking and disease and to develop favorable research and expert witnesses to defend the industry in court. These research projects, known as TIRC/CTR Special

Projects, were initiated and developed by Defendants through their agents, including outside counsel, who used them to provide research funding for scientists and doctors who might be willing to provide testimony favorable to the cigarette companies on smoking and health matters. The funding of Special Projects was handled by Defendants' agent, including the law firms of Jacob, Medinger & Finnegan and Shook, Hardy & Bacon.

2029. Special Projects were often funded when the SAB would not approve grant funding for a proposed research project or when the cigarette companies needed favorable research performed for litigation purposes, and wanted it done quickly. Special Projects were sponsored and approved by the companies' attorneys and used to defend health litigation.

2030. Cigarette Company Defendants knew that CTR Special Projects work was not independent science. Internal company documents expressed concern about the "degree to which [Special Projects] make advocacy primary and science becomes secondary," and that, to aid in litigation, the companies, through Special Projects, were funding science that was "not worth a damn."

2031. The General Counsels of Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American began using CTR funds to pay for Special Projects in large numbers. From at least 1965 to 1993, there are hundreds of mail and wire communications among the members of the Committee of Counsel, Jacob, Medinger & Finnegan, and Shook, Hardy & Bacon regarding information and funding approval for individual Special Projects.

2032. Attorneys approved Defendants' funding of CTR Special Projects and CTR's

President Thomas Hoyt assigned each project a number.

2033. The lawyers directed CTR to fund Special Projects which used such techniques as epidemiology, laboratory work, or animal experimentation, but the lawyers themselves were not scientists, nor did they have scientific backgrounds. The lawyers did not want to use the CTR SAB method of funding because the SAB had scientific goals in mind for its decisions to fund projects, whereas the lawyers had litigation and liability goals in mind for the Special Projects.

2034. CTR Special Projects were funded based on contributions received from interested CTR member tobacco companies and these company contributions were specifically earmarked for Special Projects. Shook, Hardy & Bacon attorney Donald Hoel found that the CTR Special Projects were much more useful in supporting tobacco liability positions than the projects funded through the SAB.

2035. In an undated document, Philip Morris drafted nine recommendations on the future research program and procedures of CTR. Recommendation No. 5 confirmed that in-house attorneys were involved in developing Special Projects. This recommendation stated: "Special Projects developed by the industry's attorneys should be reviewed by the Scientific Director and, to the extent possible, should be incorporated into the CTR research program."

2036. Attorneys from Jacob Medinger & Finnegan and Shook, Hardy & Bacon were involved with CTR Special Projects from their beginning in the 1960s.

2037. Starting in the mid 1960s, Shook, Hardy & Bacon developed smoking and health literature databases within its law firm to help the lawyers pick scientists friendly to the tobacco

industry liability positions so that these scientists could receive CTR funding through the Special Projects method.

2038. Special Projects came into being in the mid 1960s when "it was decided to undertake various special projects in the form of contract research, pilot and exploratory studies, short-term research projects and other projects – such as preparation of bibliographic reviews and analytical monographs – whose character would render them narrower in scope than broader objectives of the Advisory Board's grants-in-aid program."

2039. As early as June 15, 1966, General Counsels were approving special projects.

2040. An April 14, 1967 memorandum to Addison Yeaman revealed: "We have deliberately isolated SAB from those areas of research which they might consider were of a controversial or adversary nature and I see no reason why that isolation cannot and should not be maintained to the fullest preservation of the scientific integrity and dignity of the SAB, but with the release of funds from the SAB portion of CTR's budget to both research directly related to tobacco and to the so-called Special Projects."

2041. On October 3, 1968, Philip Morris Assistant General Counsel Alexander Holtzman sent a letter to David Hardy of Shook, Hardy & Bacon proposing that Special Projects funding for a scientist, Dr. Richard Hickey, whose application to CTR for funding was previously turned down but who was likely to produce data useful to defendants, be approved. The letter stated that "Dr. Hickey is willing to prepare a statement for Congress provided that he is put in a position to complete the analysis of data which he has in-hand and he would, in my

opinion, make an excellent witness."

2042. On December 24, 1969, industry consultant Arthur Furst sent a letter to lawyer David R. Hardy recommending Special Project funding for Hans Eysenck, Institute of Psychiatry, University of London, to test the hypothesis of a relationship between the emotional make up of people and cancer by making a pilot study of carcinogenesis in rats bred for differences in neurotic characteristics.

2043. On July 14, 1970, Arthur J. Stevens sent a Lorillard memo to Dr. Alexander Spears requesting his opinion on a funding request presented at a July 8, 1970 General Counsels meeting for a scientific symposium on "Benefits of Smoking" in early 1972, to be conducted under Special Projects funding.

2044. The evidence shows that control by the companies' attorneys increased over time. The Research Liaison Committee ("RLC"), formed in 1974, approved, recommended, and monitored CTR Special Projects. See Section I.H above.

2045. A November 17, 1978 memo written by Robert B. Seligman, Philip Morris Vice President of Research and Development, noted that Bill Shinn, a Shook, Hardy & Bacon attorney, believed "that 'special projects' are the best way that monies are spent. On these projects, CTR has acted as a 'front'. . . "

2046. Industry lawyers categorized research depending on whether the outcome was adverse to the industry, allowing the industry to avoid publication as well as production in litigation. For example, one document discussed the difference between CTR Special Projects

and Lawyers Special Projects. This document described the notes from a September 10, 1981 discussion at a meeting of the Committee of Counsel between Arthur Stevens, General Counsel for Lorillard, and Ed Jacob, outside counsel for the industry.

STEVENS: I need to know what the historical reasons were for the difference between the criteria for lawyers' special projects and CTR special projects. . . . JACOB: When we started the CTR Special Projects, the idea was that the scientific director of CTR would review a project. If he liked it, it was a CTR special project. If he did not like it, then it became a lawyers' special project. STEVENS: He took offense re scientific embarrassment to us, but not to CTR. JACOB: With Spielberg, we were afraid of discovery for FTC and Aviado, we wanted to protect it under the lawyers. We did not want it out in the open."

2047. A September 10, 1981 memo from Arthur J. Stevens was titled "CTR and Non-CTR Special Projects - General Information." The memo stated, under the topic of "Special Projects" that: "We mean those projects which are initiated by lawyers, for advocacy purposes." He further noted, "CTR's Scientific Director reviews any project which the lawyers propose for funding through CTR to be certain it will not be a scientific embarrassment to CTR – but which, for a variety of reasons, may not be suitable for grant by CTR."

2048. On March 11, 1982, Arthur J. Stevens wrote that "Despite Hardy's indication last year that we would not likely renew Hickey, I am satisfied that we should do so – for reasons relating to litigation and Congressional testimony."

2049. As explained by one of the industry's lawyers in a July 13, 1984 memo, CTR Special Projects were

initiated and developed through outside counsel. A major purpose is to provide research funding for scientists who might be willing to act as consultants or provide testimony on smoking and health related areas. Sometimes the research subject is outside the scope of the CTR grants-in-aid program. Also, some scientists may have published findings not supportive of the causal theory or have views along these lines and may have problems of receiving support from NIH or other funding organizations. . . . In practice, outside counsel and the scientists develop the protocol and the budget for the project. This is sent to the CTR Scientific Director (currently Dr. Sommers) for review. If he has no objection, the proposal is then sent to the General Counsel of the companies for their approval. Once the General Counsel have approved the project, the scientist is advised to submit application to CTR for funding. Other than providing the funding, CTR is not further involved in the project. Monitoring of the research and contact with the scientist is done through outside counsel. Funding ranges from \$20,000 to as much as \$400,000 for one year of Dr. Sterling's project.

2050. When Special Projects came under scrutiny in the 1990's, Defendants ceased to administer Special Projects through CTR. In fact, counsel for Lorillard suggested in an internal document that using Special Projects to "purchase favorable judicial or legislative testimony . . . [was] perpetrating a fraud on the public." Defendants continued to fund such projects, but moved them out of CTR and placed them directly under the auspices of their agents and attorneys, who had long been involved in control of CTR Special Projects.

2051. When CTR Special Projects became the focus of a grand jury investigation in the Eastern District of New York in the 1990s, a memorandum disclosed that Special Projects were no longer administered under the auspices of the CTR "pursuant to legal advice."

2052. Instead, the Cigarette Company Defendants continued to pay for the same projects

through their outside law firms on a market share basis.

2053. A February 25, 1992 R.J. Reynolds memorandum from Daniel W. Donahue to Wayne W. Juchatz contained a detailed history of the CTR and the use of Special Projects. The memo provided a number of important reasons for the existence of Special Projects, and indicated that it was the industry's belief that it could protect the projects through the attorney-client privilege and work product doctrine. Special Projects were sponsored and approved by the companies' attorneys and used to defend health litigation. The memo stated: "The role of lawyers in CTR Special Projects appears to have continued to grow as time progressed." The memo further stated, "Lawyer involvement cannot be denied or minimized, it was simply too pervasive."

2054. On April 28, 1992, David M. Murphy of Wachtell, Lipton, Rosen & Katz, counsel to Lorillard, drafted an internal memo to partners requesting guidance on a question raised by Arthur Stevens of Lorillard and Bill Allinder of Shook, Hardy & Bacon regarding Lorillard's participation in Special Project funding of Dr. Bennett Jensen despite legal advice to discontinue Special Project contributions. Dr. Jensen "faces funding problems at Georgetown that . . . have something to do with his ties to the industry . . . and could use some funds to tide him over until he can find a new home." Murphy stated "the Jensen issue raises a larger question -- whether "CTR Special Projects" funds . . . were used to purchase favorable judicial or legislative testimony, thereby perpetrating a fraud on the public."

2055. A Brown & Williamson memo dated June 16, 1993 stated that, when litigating cases in the United States asserting fraud in connection with CTR, attorneys should not disclose

the existence of Special Projects.

2056. Harmon McAllister, former Vice President of Research at CTR, admitted that industry consultant Dr. Theodore Sterling received approximately \$4,760,878 in CTR Special Project funds over 17 years (on a number of ETS-related matters), which was quite large in comparison to other CTR funding. His explanation was "for whatever reason, the industry felt that that was worth a special consideration over and above any other consideration that had been given."

2057. Lorraine Pollice, Assistant Treasurer and Secretary of CTR, admitted that CTR did not include information about CTR Special Project research in its Annual Reports, which were widely distributed and contained information about current and terminated grants-in-aid, grantees, and their institutions. Pollice admitted that CTR administered Special Project funding through a separate checking account and received direction and funding from the sponsor companies or their attorneys, specifically Shook, Hardy & Bacon.

(iii) CTR Was More Concerned About Public Relations Than Science

2058. Internal documents show that CTR was intended to operate as a public relations "front" and a "shield" for the industry, despite the industry's contrary public statements.

2059. In fact, certain recipients of CTR funds may have been "kept on the payroll," to maintain favorable relations, either for their testimony or the testimony of their colleagues.

2060. In an attempt to create a public relations plan to distract smokers from smoking and health related concerns, Hill & Knowlton, a public relations firm retained by TIRC, stated

the following in an undated document: "There is only one problem – confidence, and how to establish it; public assurance, and how to create it – in a perhaps long interim when scientific doubts must remain. And, most important, how to free millions of Americans from the guilty fear that is going to arise deep in their biological depths – regardless of any pooh-poohing logic – every time they light a cigarette." The document also set forth various problems confronting the industry regarding public relations issues on smoking and health. 'Problem 4' displayed a number of tactics to respond to the findings of noted scientists like Wynder, Rhoads, and Ochsner. According to this document, "we have a choice, as previously indicated, of: (a) Smearing and belittling them; (b) Trying to overwhelm them with mass publication of the opposite viewpoints of other specialists; (c) Debating them in the public arena; or (d) We can determine to raise the issue far above them, so that they are hardly even mentioned; and then we can make our real case."

2061. Timothy V. Hartnett, President of Brown & Williamson, summarized the crisis of the industry in December 1953 in the following terms: "But cancer research, while certainly getting our support, can be only half an answer. . . . The other side of the coin is public relations . . . [which] is basically a selling tool and the most astute selling may well be needed to get the industry out of this hole. . . . It isn't exaggeration that no public relations expert has ever been handed so real and yet so delicate a multi-million dollar problem. . . . Finally, one of the roughest hurdles which must be anticipated is how to handle significantly negative research results, if, as, and when they develop."

2062. A December 15, 1953 Hill & Knowlton memorandum entitled "Background

Material on the Cigarette Industry Client" described how representatives of the cigarette industry "have agreed to go along with a public relations program on the health issue." In the section entitled "The Industry's Position," it stated: "They feel that they should sponsor a public relations campaign which is positive in nature and is entirely 'pro-cigarettes.' They are confident they can supply us with comprehensive and authoritative scientific material which completely refutes the health charges."

2063. Hill & Knowlton's June 21, 1954 "Public Relations Report and Recommendations for the TIRC" stated that TIRC "now has the basis needed for carrying on a long-range plan of public relations activities aimed at establishing the TIRC in the public mind as a constructive force in scientific research. These activities will endeavor to keep the following facts before the Public: 1. That there is no proof that smoking is a cause of lung cancer."

2064. Members of TIRC recognized the public relations aspect of the Tobacco Industry Research Committee. Timothy Hoyt, then Executive Secretary of TIRC, stated on April 28, 1955 that "[e]ssentially, the major purposes of TIRC are Research and Public Relations. Our job is to maintain a balance between the two, and to continue to build soundly so that at all times Research and Public Relations complement each other. In that way we intend to assume the mantle of leadership and, ultimately, to create a condition where the public will look to the TIRC for the answers rather than to others."

2065. Statements from TIRC meeting minutes and letters attest to the industry's satisfaction at having successfully influenced the public to believe that there was a legitimate scientific controversy regarding smoking and health and that the tobacco industry was an open

and honest participant in that debate. An April 28, 1955 Confidential Hill & Knowlton Public Relations Report to TIRC stated that "an increasing number of scientists and researchers are anxious to report on their works involving cigarettes. Of late, most of these have been anticipated and when necessary, steps are taken to deal with the findings. These reports include studies on the relation of tobacco and heart as well as tobacco and lung cancer."

2066. The April 28, 1955 document also stated:

Factors Show Improved Position . . . Nevertheless, progress has been made. On the positive side, these factors stand out: 1. The first "big scare" continues on the wane. There is much general awareness of the big IF factors involved. In some instances, the accusers have gone to such extremes that their credibility is being questioned by their colleagues in their own profession. 2. The research program of the Tobacco Industry Research Committee has won wide acceptance in the scientific world as a sincere, valuable and scientific effort. This is due primarily to the stature of the men serving on the Scientific Advisory Board, the soundness of the research program developed, the caliber of research so far approved, and of the investigators receiving grants. 3. The status of the Tobacco Industry Research Committee itself has been enhanced by the freedom of action granted scientists, the increase to \$1 million of research funds, and the obvious sincerity of approach to the problems. Both governmental and institutional groups in the field of health have shown recognition of the contribution the Tobacco Industry Research Committee is making. 4. There is greater and growing expression of the position that cigarettes do not and should not stand convicted. This is evident in both the scientific and lay communities. Suspicion is still widespread but the lynching party seems to have been called off, at least temporarily. 5. Treatment of the cigarette-health issue in public media continues to improve from the Tobacco Industry Research Committee point of view. Even adverse stories now tend to carry modifying statements. Positive stories are on the ascendency. They may not always be in the places we would like to see them and they may not always say the things we would like them to say. But at least they are now showing up and they do cast

doubt on the cigarette attacks. A year ago attacks predominated and they were generally immoderate.

2067. A letter dated July 30, 1957 from E.A. Darr, President of R.J. Reynolds, to Paul Hahn, President of American, praised Hahn for having the foresight to argue in favor of the creation of the TIRC in December 1953. The letter also stated:

It now appears, however, that the tobacco industry should go on the offensive in bringing the truth about cigarette smoking to the public. . . . I am convinced that an organization of tobacco manufacturers formed for the narrow and well-defined specific purpose of presenting facts and information helpful to the industry can and should be formed and that such an organization be entirely separate from the TIRC, which would continue its activities in connection with the Scientific Advisory Board grants but would discontinue the major part of the public relations activity, leaving this to be handled by the new organization, whatever name might be given to it. Certainly, no one can question the necessity of our going on the offensive without delay.

2068. In the SAB's meeting of August 20-21, 1957, "[i]t was suggested . . . that consideration should be given to a broadening of studies to determine other factors which might be suspected to have a role in the pathogenesis of lung cancer and perhaps the enlistment of other industries thus involved."

2069. In addition to the false statements made by Defendants individually and in furtherance of their scheme to defraud, in 1958, Defendants created the Tobacco Institute, a public relations organization whose function was to make certain that Defendants' false and misleading positions on issues related to, among other things, the connection between smoking and disease, were kept constantly before the public, doctors, community leaders, the press, and

the government. At all times, Defendants controlled the Tobacco Institute, including its public statements made on behalf of Defendants.

2070. During the February 14-15, 1958 meeting of the CTR SAB, Timothy V. Hartnett informed the SAB that Hill & Knowlton "is acting as public relations counsel for both organizations [TIRC and the Tobacco Institute]. He pointed out the desirability of this from both organizations' standpoints."

2071. Further, Bowman Gray, Chairman of the Tobacco Institute, announced "a tentative decision to let the matter of the respective functions of the two organizations [the Tobacco Institute and TIRC] be decided upon a case by case basis under the guidance of public relations counsel."

2072. One section of a report dated February 19, 1963 described a meeting of industry representatives from TIRC, R.J. Reynolds, and Philip Morris at which a debate took place about the accuracy and the legal and public relations implications of whether TIRC should disseminate the statement that "the causes of lung cancer are not known to science." A handwritten note on the report indicated that the report was read to Paul Hahn and three other individuals on February 21, 1963.

2073. TIRC furthered its goal of reassuring the public through "communication of . . . the existence of weighty scientific views which hold there is no proof that cigarette smoking is a cause of lung cancer."

2074. One of Hill & Knowlton's former employees, Leonard S. Zahn, was appointed as

Public Relations Consultant to CTR in September 1969 at the Scientific Advisory Board Meeting.

2075. Ernest Pepples, Senior Vice President and General Counsel, Brown & Williamson, wrote a letter dated April 4, 1978 to C. I. McCarty, Chairman and Chief Operating Officer, Brown & Williamson, Dr. I. W. Hughes, Brown & Williamson, and DeBaun Bryant, CTR Director, and admitted:

Originally, CTR was organized as a public relations effort. The industry told the world CTR would look at the diseases which were being associated with smoking. There was even a suggestion by our political spokesmen that if a harmful element turned up the industry would try to root it out. The research of CTR also discharged a legal responsibility. The manufacturer has a duty to know its product. The Scientific Advisory Board composed of highly reputable independent scientists constitute a place where the present state of the art is constantly being updated. Theoretically SAB is showing us the way in a highly complex field. There is another political need for research. Recently it has been suggested that CTR or industry research should enable us to give quick responses to new developments in the propaganda of the avid anti-smoking groups. For example, CTR or someone should be able to rebut the suggestion that smokers suffer from a peculiar disease, as widely alleged in the press some few months ago. A properly designed research effort should encompass the need for instant response on subjects of public interest in the smoking and health controversy. Finally the industry research effort has included special projects designed to find scientists and medical doctors who might serve as industry witnesses in lawsuits or in a legislative forum. All of these matters and more should be considered in asking what kind of research the industry should do.

2076. On October 11, 1985, R.J. Reynolds attorneys received a memo concerning a meeting held August 8, 1985 to discuss the history of industry Research & Development,

especially the history of CTR, and also the issue of [CTR] document production. The document made clear that CTR, the Tobacco Institute, Special Projects, and Special 4 Projects were initiated to protect industry interests in litigation and public relations.

2077. A CTR memorandum in 1970 confirmed that CTR's "primary purpose" was for public relations and stated that "the nature of the projects [CTR] supports make it unlikely that there will be drastic anti-tobacco developments."

(iv) The Recognition: SAB Members, CTR Employees, and Defendants' Representatives All Recognized that CTR's True Purpose Was Public Relations, Not Science

2078. Robert Hockett noted in 1958 that a member of the SAB wrote the Board a letter in which, according to Hockett, he "objected to public statements which had been issued, and indicated that unless a more distinct divorce could be established between the SAB and TIRC the member felt he could not continue to serve on the Board. He was joined in this by two other Board members."

2079. Little criticized the CTR grant program as early as 1958. TIRC members were also critical of TIRC/CTR's research program. On June 1, 1970, General Counsel for Brown & Williamson, Addison Yeaman, complained that "over the years the CTR's grants have produced some 'good science,' but science which has not provided us with either much material useful on the offensive, nor much that was very meaningful on the defensive."

2080. By as early as 1958, members of the tobacco industry recognized that TIRC was doing research that would add little in the way of constructive conclusions regarding smoking

and health issues. In May 1958, a BATCo scientist (and others from the British tobacco industry) visited representatives of the United States tobacco industry and found that

Liggett & Meyers stayed out of the T.I.R.C. originally because they doubted the sincerity of T.I.R.C.'s motives and believed that the organization was too unwieldy to work efficiently. They remain convinced that their misgivings were justified. In their opinion T.I.R.C. has done little if anything constructive, the constantly reiterated "not proven" statements in the face of mounting contrary evidence has thoroughly discredited T.I.R.C., and the S.A.B. of T.I.R.C. is supporting almost without exception projects that are not related directly to smoking and lung cancer.

2081. As early as 1962, TIRC employees were aware that TIRC had been created as a public relations tool to help preserve the tobacco industry. In an April 9, 1962 TIRC memo from Associate Scientific Director J.M. Brady to Little, Brady indicated: "Historically, it would seem that the 1954 emergency was handled effectively. From this experience there arose a realization by the tobacco industry of a public relations problem that must be solved for the self-preservation of the industry." The memo suggested that in the future the industry would need to revise and expand the efforts of the TIRC. Brady made a number of suggestions, including increasing the budget of the TIRC to \$5 million per year and making an educational television film.

2082. By 1964, members of the worldwide tobacco industry recognized that CTR research was less scientifically valid than that of other research organizations. In a trip report written in October 1964 by British scientists, it was stated "both L&M and Lorillard scientists told us quite bluntly that they considered TRC [the British trade group] research was on the correct basis and CTR largely without value."

2083. Similarly, in May 1973, after a trip to the United States, scientists from England wrote that "[i]t was difficult to avoid the sad conclusion that C.T.R. has become a backwater of little significance in the world of smoking and health."

2084. In 1967, W.W. Bates, Liggett's Director of Research, wrote to the President of the Tobacco Institute, claiming the smoking and health problem "is basically a scientific one." Bates further stated that "so far, however, the major efforts of the industry to cope with this problem have been other than scientific." Bates also stated that: "The CTR and AMA programs suffer from almost the same fault. Most of their projects have only a peripheral connection to tobacco use."

2085. A November 14, 1967 CTR memorandum acknowledged the lack of scientific validity in the industry's so-called research: "This work may be characterized as 'glorified testing' rather than basic scientific research. Such work, however, has a necessary place in our program..."

2086. Each year CTR issued a report summarizing the results of its research. These summaries were written by one CTR employee from 1969 until 1989. When interviewed later by the Wall Street Journal, the author stated that "[w]hen CTR researchers found out that cigarettes were bad and it was better not to smoke, we didn't publicize that. . . . The CTR is just a lobbying thing. We were lobbying for cigarettes."

2087. A March 11, 1970 industry document disclosed that Thomas Osdene, a Philip Morris scientist, questioned the worth of the CTR research: "Osdene's view (Philip Morris's

view?) was that the C.T.R. did virtually no useful work and cost a vast amount of money."

2088. In a memorandum dated December 8, 1970, Helmut Wakeham, Vice President of Research and Development for Philip Morris, admitted that the industry's interest in smoking and health research was to find evidence to deny allegations of a link between cigarettes and disease, and argued "[i]t has been stated that CTR is a program to find out 'the truth about smoking and health.' What is truth to one is false to another. CTR and the Industry have publicly and frequently denied what others find as 'truth.' Let's face it. We are interested in evidence which we believe denies the allegation that cigaret smoking causes disease."

2089. A letter written by a high-level CTR employee who had retired from Brown & Williamson in 1972 was addressed to "Gentlemen" regarding "The Present State of CTR." The letter stated, in part: "It is my sober judgment that CTR, as it now operates, is the greatest public relations asset you have in the problem of tobacco and health. But the moment CTR becomes, or the attempt is made to use it, as a public relations instrumentality, your asset will lose its value because it will have lost its scientific integrity."

2090. A September 29, 1978 memo from Ernest Pepples, Senior Vice President and General Counsel, Brown & Williamson, to C. I. McCarty, Chairman and Chief Operating Officer, Brown & Williamson, discussed a memo written by William Shinn of Shook, Hardy & Bacon concerning the value of CTR to the industry. According to Pepples, "CTR is our window on the world of smoking and health research. This avoids the research dilemma presented to a responsible manufacturer of cigarettes, which on the one hand needs to know the state of the art and on the other hand cannot afford the risk of having in-house work turn sour." Pepples further

stated: "The point here is the value of having CTR doing work in a nondirected and independent fashion as contrasted with work either in-house or under B&W contract which, if it goes wrong, can become the smoking pistol in a lawsuit."

2091. A draft opening statement prepared by Shook, Hardy & Bacon in 1990 admitted that the TIRC "was a public relations gimmick because the industry controlled the research from 1954 right up until today." The document further stated: "This so-called independent research corporation has been led for 36 years by nothing but industry executives and lawyers carrying out the orders of the tobacco companies."

2092. Undated handwritten notes stated that "CTR is the best & cheapest insurance the tobacco industry can buy and without it, the industry would have to invent CTR or would be dead."

(3) The Reality: Defendants Closely Controlled Research on Environmental Tobacco Smoke to Reach Findings Favorable to Their Litigation Strategies

2093. Defendants' response to the emerging scientific evidence on environmental tobacco smoke ("ETS") was closely controlled by their attorneys, who were involved in nearly every step of the process of Defendants' concerted actions. Attorneys were involved in the selection and management of "research" projects through front organizations like CTR and various ETS committees; attorneys were involved in the management of misinformation campaigns through the Tobacco Institute and international organizations like the International Tobacco Information Center/Centre International d'Informatin Du Tabac ("INFOTAB"). Donald

Hoel of Shook, Hardy & Bacon and John Rupp of Covington & Burling were predominant amongst the lawyers involved with the Enterprise's efforts regarding ETS. Hoel worked in a number of Defendants' ETS committees from the 1970s until 1993. In an internal Shook, Hardy & Bacon memorandum, Hoel admitted that his law firm was "instrumental in organizing the tobacco industry's response to the ETS issue."

2094. The stated mission of the Center for Indoor Air Research ("CIAR") was to be a focal point organization to sponsor and foster quality, objective research in indoor air issues with emphasis on ETS and to effectively communicate pertinent research findings to the broad scientific community. While Philip Morris, Lorillard, and R.J. Reynolds represented that CIAR was independent, its by laws revealed otherwise. The by laws required that charter members be tobacco companies; they dictated that only charter members have the power to choose CIAR's officers; and, significantly, gave charter members the exclusive power to decide what research the organization would fund. CIAR's by laws were not the only source that belied the stated purpose of the organization. On April 25, 1988, Thomas Osden, at that time the Director of Science at Philip Morris, explained to the Tobacco Institute's president that the purpose of CIAR was to provide Defendants with ammunition for legal and legislative fora where ETS exposure was at issue. CIAR was intended to allow Defendants to perpetuate a "scientific controversy" surrounding the health effects of ETS exposure. As Rupp explained in March 1993: "In sum, while one might wish it otherwise, the value of CIAR depends on the industry's playing an active role (1) in identifying research projects likely to be of value and (2) working to make sure that the findings of funded research are brought to the attention of decision makers in an appropriate

and timely manner." According to a former CIAR board member, "ETS was a litigation issue and a PR issue."

2095. Starting in the late 1980s, Defendants, led by Hoel, Rupp, and Philip Morris, intensified their efforts to identify and fund industry friendly scientists around the world to attack the science linking ETS exposure to disease. This ambitious undertaking was referred to as, among other things, the ETS Consultant Program or the "White Coat Project." The project description revealed its scale and focus:

In every major international area (USA, Europe, Australia, Far East, South America, Central America & Spain) they [Philip Morris] are proposing, in key countries, to set up a team of scientists organized by one national co-ordinating scientist and American lawyers, to review scientific literature or carry out work on ETS to keep the controversy alive. They are spending vast sums of money to do so. . . . Because of the heavy financial burden, Philip Morris are inviting other companies to join them in these activities.

For a detailed history of CIAR's mission, its research program, the White Coat Project, and lawyer involvement in those research decisions, see Section IV.A above.

(4) The Reality: The Cigarette Company Defendants Actively Concealed Adverse Scientific Findings, Entered into Agreements Not to Conduct Research, and Used Lawyers to Control Research so that It Would Serve the Purposes of Litigation and Public Relations

2096. Despite their promises to the contrary, and as they had foreseen and intended, Defendants failed to conduct independent research, sequestered adverse scientific findings, and, as a result, failed to warn the public about the true results of scientific research. Because of this,

many Americans, including millions of children, became addicted to cigarettes, and many people who were already smoking continued to smoke or had difficulty quitting, with resulting profits for the Cigarette Company Defendants and damage to the health of smokers, former smokers, their spouses and dependents.

2097. The Defendants' promise to conduct independent research, when coupled with their suppression of truthful information about the adverse health effects of smoking and tobacco's addictiveness, had a natural result of influencing the decisions of people to begin or continue smoking.

2098. The pervasive and consistent involvement in and control of science by Cigarette Company Defendants and their lawyers demonstrates that, contrary to their continuing promise to the American public, the Cigarette Company Defendants were not engaged in independent disinterested research into the health impact of smoking.

2099. Defendants' in-house and outside counsel acted to control scientific research in order to further the interests of the Enterprise, including:

- creating the impression that an "open question" existed regarding whether smoking caused disease;
- preventing and hiding adverse scientific findings to avoid or limit the Cigarette Company Defendants' exposure in smoking and health related products liability lawsuits; and
- creating a positive public relations position for the Cigarette Company Defendants despite the harmful effects of smoking cigarettes.

(a) Defendants Concealed Scientific Documents, Opinions, and Findings Adverse to Their Interest

2100. The biological research that the cigarette companies did perform was closely controlled to ensure that, if it resulted in additional evidence that smoking causes disease or that nicotine is addictive, it would not become public or subject to discovery in court proceedings. This control included (a) performing research outside the United States in order to keep documents and witnesses hidden and out of the reach of state and federal courts, and (b) taking other steps to shield documents and materials from discovery, including attempts to cloak scientific documents in the attorney-client privilege.

2101. In 1969, the R.J. Reynolds Research Department confirmed to the Legal Department that it would destroy documents to protect the company's position in smoking and health litigation. The Research Department indicated that it did "not foresee any difficulty in the event a decision is reached to remove certain reports from research files. Once it becomes clear that such action is necessary for the successful defense of our present and future suits, we will promptly remove all such reports from our files As an alternative to invalidation, we can have the authors rewrite those sections of the reports which appear objectionable."

2102. Also, in a late 1969 letter, BATCo scientist Geoff Felton described to another BATCo scientist a conversation with attorney Ed Jacob about the drafting and storage of scientific research documents:

Following the meetings with Dr. A. Furst (CTR, New York) and Mr. Jacob . . . I spent an evening with Mr. Jacob in his room at the Savoy Hotel.

In the course of these discussions, he said that he was still retained by B&W (and to some extent Reynolds Tobacco

Company) to advise them on legal aspects of smoking and health. In the course of his duties, he has received from Pat Kelly of the Law Department of B&W a copy of the minutes of the Kronberg conference, with the request that he should advise B&W whether these minutes would be embarrassing if maintained in the files of B&W. So far, he had only given these cursory consideration, but in his opinion this was enough to say that in their present form they would be embarrassing if B&W were forced to open their files to opposition lawyers in any of the three law suits currently pending against B&W.

. . .

Ed Jacob went on to say that the minutes were being given detailed consideration by Dave Hardy, who is another of the lawyers who, I believe, advises the ad hoc committee on the course of litigation. . . . He suggested that draft minutes might be sent for scrutiny by lawyers before finalizing.

2103. Philip Morris conducted in-house research in Europe in order to avoid disclosure of unfavorable results to the public.

2104. On February 24, 1970, Joseph Cullman III, Chairman of the Board and Chief Executive Officer of Philip Morris, sent an internal memo to Helmut Wakeham, Philip Morris's Vice President of Research and Development, concerning Philip Morris's research activities at INBIFO, a research facility in Cologne, Germany. He noted that "[t]he possibility of getting answers to certain problems on a contractual basis in Europe appeals to me and I feel presents an opportunity that is relatively lacking in risk and unattractive repercussions in this country."

2105. On April 7, 1970, Wakeham sent a memorandum to Philip Morris President Clifford Goldsmith regarding the acquisition of INBIFO. He stated: "Since we have a major program at INBIFO, and since this is a locale where we might do some of the things which we are reluctant to do in this country, I recommend that we acquire INBIFO either in toto or to the

extent of controlling interest."

2106. In 1970, Philip Morris purchased INBIFO. One perceived value of INBIFO was that Philip Morris could control the research conducted there and that overseas experiments could be terminated at will. Philip Morris took steps to conceal this arrangement. Company scientists shipped documents from locations in the United States to Cologne for storage in order to remove unfavorable or embarrassing research results from Philip Morris's files during and in advance of litigation and thereby to avoid discovery of adverse documents. Discussing how to handle records relating to the INBIFO arrangement, senior Philip Morris scientist Thomas Osdene characterized the arrangement as follows: "Ship all documents to Cologne Keep in Cologne If important letters have to be sent please send to home & I will act on them and destroy."

2107. A 1970 legal memorandum from David Hardy of Shook, Hardy & Bacon to Brown & Williamson contained a thinly veiled instruction that employees be told that they could not make statements suggesting that smoking caused health problems, regardless of their personal beliefs. Hardy wrote that:

It is our opinion that statements such as the above constitute a real threat to the continued success in the defense of smoking and health litigation. Of course we would make every effort to "explain" such statements if we were confronted with them during trial.

As you know, with the testimony of independent and well-informed doctors and scientists, it has been repeatedly demonstrated in court to the satisfaction of impartial jurors that cigarette smoking has not been scientifically proven to cause

disease We have been able to show this to be the case when such suspicion has been claimed by our known enemies to be established fact. Obviously our problem becomes entirely different and far more serious when agents or employees of the defendant cigarette company or its parent become the spokesmen against us.

In conclusion, I would like to emphasize that, in our opinion, the effect of testimony by employees or documentary evidence from the files of either BAT or B&W which seems to acknowledge or tacitly admit that cigarettes cause cancer or other disease would likely be fatal to the defense of either or both companies in a smoking and health case.

We, of course, know that the position of BAT as well as B&W is that disease causation by smoking is still very much an open question. Cigarettes have not been proven to cause any human disease. Thus, any statement by responsible and informed employees subject to a contrary interpretation could only result from carelessness. Therefore, employees in both companies should be informed of the possible consequences of careless statements on this subject.

2108. Similar guidance was presented to BATCo by Hardy in 1974. He advised BATCo against admitting to the public what its scientists knew internally, that smoking causes disease. At the time, BATCo was considering placing a warning on cigarette packages sold in England – with no government attribution – that stated that smoking "causes lung cancer, bronchitis, heart disease." In a letter addressed to BATCo, Hardy advised that this admission of fact would impede the defense of litigation in the United States. He wrote:

The proposed new warning removes the attribution of the warning to "H.M. Government," and instead appears to be a voluntary and direct admission by the cigarette manufacturer that the cigarettes contained in the package cause "lung cancer, bronchitis, heart disease." A wholly owned subsidiary of the manufacturer would, in our opinion, be adversely and prejudicially

effected by such a voluntary warning even though it is a separate entity.

. . .

Once the fact and content of the warning got before a jury in the United States in a case involving the subsidiary, the defense of "no proof of causation" would be lost for all practical purposes. Such a result would indeed be unfortunate in view of the fact that in every instance where the matter has been explored in our Court through expert testimony and otherwise, the cigarette manufacturer has prevailed.

2109. In a memorandum dated July 29, 1977, Lorillard executive Alexander W. Spears advised C.I. Lewis, the Supervisor of the Analytical Development Section of Lorillard's Research Department, that a scientist who was to deliver a research paper must delete data in the study related to human smoking habits: "To follow up our telephone conversation of this date, I approve the request of Walter Thompson to present a paper at the ASQC meeting in Chicago. However, the data relating to human smoking habits should be deleted or remain unidentified with respect to human smoking behavior. In other words, I do not want Lorillard to report identifiable data on human smoking behavior."

2110. On March 31, 1977, Robert Seligman, Vice President of Research and Development at Philip Morris, wrote a letter to Dr. Max Hausermann, Vice President of Research and Development of Philip Morris International, concerning procedures for sending samples to INBIFO. He specifically noted, "you know that Helmut [Wakeham] was requesting that we send samples directly to INBIFO. This suggested procedure is in direct conflict with our communications from the New York Office. We have gone to great pains to eliminate any written contact with INBIFO, and I would like to maintain this structure . . . perhaps we should

consider a 'dummy mailing address' . . . for the receipt of samples."

2111. A February 16, 1978 memorandum from Philip Morris Director of Research Thomas Osdene to Robert Seligman, Vice President of Research and Development, stated: "The Roper Proposal to the Tobacco Institute sounds good and I believe the thesis is probably valid. However, there are several implications inherent in such a study which lead me to conclude that the study should not be done." Osdene noted, "[a]n admission by the industry that excessive smoking is bad for you is tantamount to an admission of guilt with regard to the lung cancer problem."

2112. A November 9, 1979 Brown & Williamson memorandum from Kendrick Wells, an in-house Brown & Williamson attorney, to Ernest Pepples, Brown & Williamson's General Counsel, discussed "various alternatives for handling BAT scientific reports which come to B&W in a way that would afford some degree of protection against discovery." Wells recommended routing all scientific documents from BATCo through a Brown & Williamson scientist designated as an agent of the general counsel. The scientist would "separate reports which were relevant to smoking and health, or otherwise sensitive, for special handling" and the documents "designated as sensitive" would be "sequestered."

2113. In the 1980s, BATCo lawyers rewrote research reports prepared by the British equivalent of CTR, the Tobacco Advisory Council ("TAC"), to remove what were perceived as damaging statements. Attaching a heavily edited version of the TAC annual research review, BATCo attorney Anne Johnson in 1983 wrote: "There are serious concerns in the USA with regard to this document as it stands at the moment for reasons I mentioned in my note, especially

as all the tobacco manufacturers in the States are now involved in litigation on the primary issue of causation of disease."

2114. In late 1982 and early 1983, R.J. Reynolds's lawyers undertook to influence the positions on smoking and health taken by then head of R.J. Reynolds's Research & Development G. Robert DiMarco.

2115. A series of documents in R.J. Reynolds's files discusses concerns that some managers and lawyers had over the efforts of DiMarco to research a safer cigarette and his willingness to concede that a dose response relationship existed between cigarette exposure and lung cancer. Ultimately the company lawyers recommended that DiMarco be retained because "[h]e is beginning to understand the tobacco business," "[h]e is beginning to cooperate with the lawyers," and "[h]e is saying the right things now to us and others." Within a four month period R.J. Reynolds came to the conclusion that it had resolved its "problems" with DiMarco and that he had become willing to subscribe to the company and industry position on causation of cancer, and smoking and health more generally.

2116. A 1982 internal R.J. Reynolds memorandum describes DiMarco's initial refusal to remove ammonia from a list of ingredients R.J. Reynolds was preparing to submit to the United States Department of Health and Human Services ("HHS") under the statutory mandate to disclose cigarette ingredients. Initially DiMarco "stated that he would 'quit' before he let us take it off the list because, in his view, it was just what HHS was looking for and to exclude it on some technical (word smithing) grounds would be 'misleading' and 'dishonest.'" Ultimately

DiMarco "somewhat reluctantly" acquiesced to removal of ammonia from the list because as R.J. Reynolds's in-house lawyer Wayne W. Juchatz put it "[h]is response was 'does it matter' (implying that we would do it anyway)."

2117. In 1982 DiMarco indicated that R.J. Reynolds's "medical/scientific witnesses will say whatever [the lawyers] want them to say – clearly implying (if not stating) that they lacked credibility and integrity."

2118. On March 29, 1983, attorney Timothy M. Finnegan of Jacob, Medinger & Finnegan revised a draft summary of a meeting, attended by Finnegan and attorneys Ed Jacob and Sam B. Witt, to discuss Finnegan's prior "all-day" meeting with DiMarco. Meeting participants identified "two major risks" concerning DiMarco: "The risk that if he is called upon to testify in litigation or legislative hearings as the Company's chief scientist, he could not support the Company's/Industry's position, (i.e. smoking has not been scientifically established to be the cause of any disease in man). We agreed this could be devastating . . . [and] [t]he risk that, as the person responsible for establishing scientific policy and directing our R&D efforts, he would commission scientific work (i.e. establish a record) that if subpoenaed would jeopardize our legal defense or at a minimum prove embarrassing or hard to handle."

2119. A 1984 letter from Brown & Williamson's General Counsel, Ernest Pepples, to BATCo's deputy chairman expressed concern about a BATCo scientific report on addiction and requested that BATCo lawyers work "more closely" with the BATCo scientists involved:

In developing and carrying forward the position that a 'simple' addiction model cannot explain smoking behavior, the

report seems to concede that many potential criteria for addiction identification are met by smoking behavior.

....

Throughout the report unfortunate concessions appear regarding 'tolerance and withdrawal.' The report frequently expresses the view that smoking has certain 'therapeutic properties' and nicotine is compared to the action of tranquilizers, alcohol, etc. In addition, smoking is referred to as one form of 'drug usage', 'psychoactive substance usage', or 'psychoactive drug usage'.

As you know in the current legislative and litigation environment in the U.S., claims of addiction have been and will be used against Brown & Williamson by our adversaries. Such claims have been vigorously opposed in order not to give a claimant an unjustified weapon to use against the company or the industry.

In addition, the possibility for involvement by the U.S. Food and Drug Administration would be heightened by company or industry promotion of the theme of this report, as it will be generally perceived.

If such matters as the 'Functional Significance' document and the Conference binders, enclosed herewith, are not already routinely vetted with BATCo lawyers, you may want to consider involving them more closely in both the conceptual and the drafting stages of these projects. Thank you very much for your help in this area of great concern for us.

2120. In 1985, Brown & Williamson Associate General Counsel J.Kendrick Wells directed members of the Brown & Williamson Research & Development Center to collect certain documents he had identified on an attached list relating to the behavioral and biological studies area for shipment to BAT once all such documents had been gathered. Wells directed Earl Kohnhorst, Brown & Williamson's Vice President for Research, Development and Engineering,

to tell the research personnel that the removal of the documents "was part of an effort to remove deadwood from the files and that neither he nor anyone else in the department should make notes, memos, or lists" (emphasis added). The documents included the Janus studies, a secret program of biological research on the effects of smoking which showed tumor growth in animals.

2121. On January 9, 1985, Mike Hardwick, BATCo Research Manager, wrote a memo about a call the same day from Ray Pritchard, Chairman and Chief Executive Officer of Brown & Williamson, who had received a letter from I.W. Hughes, former Chief Executive Officer of Brown & Williamson, "indicating a mechanism for our sending scientific information to B&W." He noted, "[i]n principle it will mean our mailing contentious information to a legal man called Maddox [of the law firm of Wyatt, Tarrant & Combs] . . . with a covering letter from us saying that Millbank [BATCo research facility] has asked that he (Maddox) receive it." He went on to say that Pritchard "is aware of our present control procedure, i.e. that material is vetted by Research Managers and, where non-contentious, sent; where contentious, referred to Millbank." Hardwick concluded, saying "I believe that he [Pritchard] will agree with this procedure continuing for non-contentious material in the future."

2122. On January 17, 1985, Kendrick Wells, Assistant General Counsel of Brown & Williamson, wrote a file note concerning document retention. He described a meeting he had on January 15 with Earl Kohnhorst, Brown & Williamson Executive Vice President and Chief Operating Officer, about engineering and scientific reports held by the Research and Development department. Wells told Kohnhorst "that neither he nor anyone else in the department should make any notes, memos or lists."

2123. On September 10, 1985, Nick Cannar and Ann Johnson, BATCo in-house lawyers, sent a restricted memo to E.A.A. Bruell and D.G. Heywood, BATCo Executive Director of Finance, advising that the United States litigation involving Brown & Williamson would inevitably result in discovery of research documents held at BATCo's research and development facility "because of the past funding arrangements . . . and the financial contribution made by B&W over the years." In-house counsel added they were concerned about the "recent minutes of the biological conference in Canada" and that "elements of the draft 1986 programme . . . cause us further concern e.g. research into biological activity and the selective filtration of certain constituents of cigarette smoke."

2124. On February 17, 1986, J. Kendrick Wells, Brown & Williamson in-house counsel, sent a memo to Ernest Pepples on BATCo Science, discussing the policy on Brown & Williamson's receipt of reports of ongoing research from certain projects being conducted at labs of affiliated companies, and balancing the benefits of information against the dangers posed in light of ongoing litigation. He noted, "While the brevity of the reports will reduce the potential for receipt by B&W of information useful to a plaintiff, disadvantageous information could be included and the reports could serve as road maps for a plaintiff's lawyer."

2125. During the 1990s, Liggett scientists were directed to label their work as privileged and confidential in order to prevent its discovery in civil litigation.

2126. A June 14, 1991 memo to BATCo scientist Sharon Boyse on the 8th World Conference on Smoking and Health indicated that the tobacco industry hoped to generate "controversy" among the participants and then broadcast these disputes to the public to create

controversy on issues where none existed. The industry planned to be careful not to appear to sponsor any of the participants by using "independent institutions" to fund them.

2127. In October 1991, Bob Pages, a Philip Morris scientist, forwarded a note to Chuck Wall, Vice President and Associate General Counsel of Philip Morris Companies, and Steven Parrish, Senior Vice President and General Counsel of Philip Morris. The note related to Philip Morris-sponsored research on nicotine's role in in vivo nitrosamine formation (and whether presence of nitrosamines in urine supports the theory), and the decision to disallow publication of the research results at a conference. After an initial agreement was made to allow publication of the results (because no smokers were found to have nitrosamine tracer in urine), the tracer for nitrosamine was found in one out of ten smokers. When Philip Morris was told that the scientist would not include data about the one smoker in the abstract, WPA approved funds. Then, the nitrosamine tracer was found in three additional smokers. "As this sensitive results were generated within the industry and not available to others, WPA decided that poster presentation based on Abstract submitted should be given and project work terminated" (emphasis added).

2128. On September 21, 1994, BATCo attorney H.A. Morini sent a note to L.C.F. Blackman, Director of Research at BATCo, regarding a conversation with Ernest Pepples about the procedure for communications between Brown & Williamson and the BATCo research department. Morini instructed Blackman that "[c]ontentious' items emanating from GR&DC, particularly in regard to biological activity should be given legal clearance before dissemination" and that "transmission to B&W should be through me to Pepples thus maintaining the legal privilege - 'attorney work product.'" Morini also advised that "[n]on contentious' issues can be

sent direct from GR&DC to B&W care of Gil Esterle." Esterle was a Brown & Williamson scientist.

(b) Defendants Entered into Agreements That Limited Scientific Research and Actively Policed Those Agreements

2129. Defendants entered into agreements (1) not to conduct in-house research, including basic biological research; (2) not to compete on health issues; and (3) to share any discoveries related to reducing the harmful effects of cigarettes. In many cases these agreements precluded research; in others, they destroyed the incentive to conduct research.

2130. Although they recognized that research and testing were essential to evaluating the health risk posed by their products, Defendants, pursuant to the "Gentlemen's Agreement," generally did not perform biological research on smoking and health. In a secret internal communication in 1964, Philip Morris Research and Development Vice President Helmut Wakeham acknowledged the legal jeopardy inherent in Defendants' joint agreement, when he (unsuccessfully) recommended that "[t]he industry should abandon its past reticence with respect to medical research. Indeed, the failure to do such research could give rise to negligence charges." Despite Wakeham's warning, Defendants persisted in their agreement.

2131. An undated Philip Morris document entitled "Need for Biological Research by Philip Morris Research and Development" stated in part: "We have reason to believe that in spite of the gentlemen's agreement from the tobacco industry in previous years that at least some of the major companies have been increasing biological studies within their own facilities."

2132. On December 3, 1976, Hugh Cullman, Executive Vice President of Philip Morris, memorialized a suggestion for a discreet meeting of the heads of certain tobacco companies, including BATCo, R.J. Reynolds, and Philip Morris International, "to develop a defensive smoking and health strategy." The initial objective of this group was to develop a smoking and health agreement which would include a voluntary agreement, that no concessions beyond a certain point would be voluntarily made by the members and if further concessions were required by respective governments, that these not be agreed to and that governments be forced to legislate. These leaders met in 1977, and the meeting was called "Operation Berkshire." The group formed what was called the International Committee on Smoking Issues ("ICOSI").

2133. A 1977 draft R.J. Reynolds memo recommended that it would be beneficial for R.J. Reynolds Tobacco International to initiate discussions with its overseas competitors to develop a consensus on the smoking and health controversy.

2134. Herschel H. Cudd, Jr., member of the Board of Directors of R.J. Reynolds, gave voice to the notion of the "Gentleman's Agreement" in 1978. He noted: "A wholly-owned subsidiary in Cologne, Germany engages in carcinogenic biological research, such as mouse painting, in violation of the verbal agreement among domestic companies not to perform animal testing in-house."

2135. R.J. Reynolds scientist Frank Colby wrote in 1981, "There is a clear-cut agreement among all U.S. cigarette manufacturers that any scientific discovery made within the companies, or otherwise sponsored by a single company, which might have a positive impact on the smoking and health controversy, would have to be freely shared, without any costs to the

other manufacturers. There would, therefore, be no incentive for RJR to sponsor the Cohen project . . . At this time, RJR does not fund directly in the U.S., any directly smoking and health related research. All such requests are answered by referring the applicants to CTR."

2136. A December 9, 1981 memo from Frank Colby listed the research-related highlights of the week. In it, he flatly stated, "Information was obtained that Philip-Morris-U.S.A. does not live up to the alleged 'gentlemen's agreement' of not having animal laboratory facilities on their premises in this country. PM indeed has had such facilities for at least 3 - 4 years and continues to operate them. This information was communicated to all concerned."

2137. Defendants actively enforced the agreements that stifled and precluded research efforts of the Cigarette Company Defendants.

2138. In the 1960s, R.J. Reynolds established a facility in Winston-Salem, North Carolina, to research the health effects of smoking using mice. In the facility that R.J. Reynolds nicknamed the "Mouse House," R.J. Reynolds scientists researched a number of specific areas, including studies of the actual mechanism whereby smoking causes emphysema. Internally, an R.J. Reynolds-commissioned report favorably described the Mouse House work as the most important of the smoking and health research efforts because it had come close to determining the underlying mechanism of emphysema.

2139. Philip Morris scientist R.D. Carpenter sent an internal memo to Helmut Wakeham, Philip Morris Vice President of Research & Development, describing the R.J. Reynolds biological facilities, which were shown to him on October 1, 1969. He notes, "[i]n

summary, R.J. Reynolds has animal experimentation facilities, a staff of 10 - 12 people doing animal experimentation work, and is doing smoke inhalation studies."

2140. In 1970, Philip Morris's President complained to R.J. Reynolds about the work going on in the Mouse House. Despite the progress made there, R.J. Reynolds responded to the complaint by closing the Mouse House – disbanding in one day, without notice to the staff, the entire research division, firing all twenty-six scientists working there, and destroying years of smoking and health research.

2141. On August 13, 1971, R.J. Reynolds scientist Frank G. Colby informed R.J. Reynolds General Counsel H. C. Roemer that Philip Morris was conducting in-house animal research.

2142. On September 20, 1983, E.A.A. Bruell, Chairman of BATCo, wrote a "Letter to All No. 1s of Operating Companies" titled "Relations with INFOTAB, National Manufacturers Associations ("NMA"s) and Competitors." Related to a September 1983 ad placed by a Philip Morris affiliate in Holland regarding Barclay, Bruell noted that the ad "is the first occasion of which we are aware when a competitor has: 1. Raised the health issue to gain competitive advantage. 2. Quoted and thereby endorsed a report of an anti-smoking lobby . . . to attack another company in the industry." As a result and in protest of Philip Morris's violation of the "Gentlemen's Agreement," BATCo pulled out of INFOTAB and affiliates were instructed to limit contacts with Philip Morris via National Manufacturing Associations in their countries of operation.

2143. On October 26, 1983, Bruell and Hugh Cullman, Chairman and Chief Executive Officer of Philip Morris, had a telephone conversation in which the participants agreed to continue the cigarette companies' internal agreement not to compete with one another on issues relating to smoking and health.

2144. For many years, despite Defendants' promise that TIRC/CTR research would be "in addition to" in-house research, Defendants failed to perform in-house smoking and health research relevant to the issue of the link between smoking and disease, including biological research. Helmut Wakeham defined the type of research prohibited at the tobacco companies, as "[s]tudying a relationship which might exist between smoking and diseases such as were tabulated in the Surgeon General's report."

2145. For example, aside from the Mouse House, R.J. Reynolds failed to conduct smoking and health research. Murray Senkus, former research director at R.J. Reynolds, testified that in his twenty-eight years with the company, R.J. Reynolds performed in-house biological testing for only three years. "Q: From the time that the Mouse House was shut down in 1970 until the time you left RJR in 1979, did RJR undertake any biological work in-house? A: Not that I can recall. Q: So from 1951 to 1979, a period of approximately 28 years, RJR only did in-house biological testing for 3 of those 28 years; correct? A: Yes."

(c) To Prevent Adverse Scientific Findings and to Ensure That Research Focused on Litigation and Public Relations, Lawyers and Business Executives Controlled the Minimal Research Conducted by the Cigarette Company Defendants

2146. In many instances, attorneys for the tobacco industry, not scientists, directed the limited scientific research and other scientific matters of the Cigarette Company Defendants. Industry lawyers were the driving force behind both the direction and suppression of scientific research. Lawyer control was used in large part in an improper attempt to "create" attorney-client privilege or work product protection for scientific documents and information where none existed.

2147. For example, a 1964 trip report prepared by British scientists visiting the United States describes how a powerful committee of United States lawyers were dominant in the smoking and health arena, including scientific research:

[T]he Policy Committee of lawyers exercises close control over all aspects of the problems.

This Committee is extremely powerful; it determines the high policy of the industry on all smoking and health matters – research and public relations matters, for example, as well as legal matters – and it reports directly to the presidents.

The lawyers are thus the most powerful group in the smoking and health situation.

2148. A December 17, 1965 memo entitled "Meeting of General Counsel on 12/17/1965" makes clear that the General Counsels were attempting to influence what research

should be done with regard to smoking and health.

(i) Lawyer Control of Science within the Cigarette Company Defendants

2149. Brown & Williamson and BATCo. Lawyers exerted great influence over smoking and health research at BATCo and Brown & Williamson. In a letter written by David Hardy, an industry lawyer at Shook, Hardy & Bacon, to the general counsel of Brown & Williamson, Hardy instructs Brown & Williamson on what should not be in the company's files or testified to by company scientists:

Fundamental to my concern is the advantage which would accrue to a plaintiff able to offer damaging statements or admissions by persons employed by or whose work was done in whole or in part on behalf of the company defending the action. A plaintiff would be greatly benefitted by evidence which tended to establish actual knowledge on the part of the defendant that smoking is generally dangerous to health, that certain ingredients are dangerous and should be removed, or that smoking causes a particular disease. This would not only be evidence that would substantially prove a case against the defendant company for compensatory damages, but could be considered as evidence of willfulness or recklessness sufficient to support a claim for punitive damages.

In conclusion, I would like to emphasize that, in our opinion, the effect of testimony by employees or documentary evidence from the files of either BAT or B&W which seems to acknowledge or tacitly admit that cigarettes cause cancer or other diseases would likely be fatal to the defense of either or both companies in a smoking and health case. I am afraid that any attempted explanation to a jury that such statements were made only in the context of a "working hypothesis" for the further development of our products would fall on deaf ears. . . . Certainly such evidence would make B&W the most vulnerable cigarette manufacturer in the United States to smoking and health suits.

2150. A June 4, 1963 letter from BATCo consultant Charles Ellis to multiple attorney recipients stated that the results of research conducted at Battelle Memorial Institute in Geneva on the physiological effects of nicotine were being forwarded to the attorneys before any critical review by scientific experts.

2151. A 1976 internal memorandum by a scientist at BATCo, S.J. Green, discusses the extent to which "legal considerations" dominated scientific research:

The public position of tobacco companies with respect to causal explanations of the association of cigarette smoking and diseases is dominated by legal consideration By repudiation of a causal role for cigarette smoking in general they [the companies] hope to avoid liability in particular cases. This domination by legal consideration thus leads the industry into a public rejection in total of any causal relationship between smoking and disease and puts the industry in a peculiar position with respect to product safety discussions, safety evaluations, collaborative research etc.

2152. The BAT "Group Research and Development Centre" ("GR&DC") was a cooperative research effort of all operating tobacco companies within the BAT Group, and the companies controlling and funding GR&DC include BATCo and Brown & Williamson. During a visit to Brown & Williamson in 1979, GR&DC scientists were informed that GR&DC "will be supported positively in the future" by Brown & Williamson only if "[w]e become more 'politically sensitive' in the areas of smoking and health, e.g., reporting of 'nasties' and biological studies generally." To reinforce the point, the Brown & Williamson hosts were directly quoted as having reminded the visiting scientists: "'Remember what pays all our salaries'."

2153. In May 1984 in a meeting with outside counsel, corporate counsel for Brown &

Williamson and BATCo discussed methods for controlling admissions by BATCo scientists on causation because of the risks posed in domestic product liability litigation.

2154. At a meeting in May 1984, B&W in-house counsel and outside litigation counsel convinced BATCo Legal that lawyer involvement in Project Rio, a scientific project, was necessary to "control the risk of generating adverse evidence admissible in U.S. lawsuits." Indeed, Brown & Williamson lawyers suggested that "[d]irect lawyer involvement [was] needed in all BAT activities pertaining to smoking and health from conception though every step of activity."

2155. In 1985 BATCo instituted a policy of having lawyers clear all scientific documents that were released outside the production group.

2156. In 1986, Brown & Williamson – through its Chairman and Chief Executive Officer Ray Pritchard and General Counsel Ernest Pepples – requested that BATCo discontinue research on smoking and health because "discovery of such research could prejudice B&W's chances of defending litigation." Moreover, document distribution was to be kept "to a minimum to avoid documents becoming available to plaintiffs in litigation."

2157. In 1990, the BAT Group announced a policy whereby to improve the quality of "scientific documents," they would be subject to "[r]egular lawyer reviews and audits."

2158. Lorillard.

[REDACTED]

[REDACTED]

2159. Liggett. As early as 1968, Liggett was concerned about, and acted to prevent, public statements about the effects of smoking on humans. In a 1968 draft statement from Liggett's Chairman to its shareholders, a proposed quote from Fortune magazine regarding smoking and health and relating to "irritant gases in cigarette smoke" was deleted by the editor of the statement.

2160. In 1978, the Legal Department at Liggett took control of an important less hazardous cigarette research project know as Project XA. Joseph H. Greer, Liggett's General Counsel, sent a memorandum to several high ranking members of Liggett management including Robert L. Kersey, Jr., the head of tobacco research at Liggett, advising them of the creation of a "Legal Project team" to take control of Project XA and that the "[t]he Legal Project team will report directly to the Law Department."

2161. In 1978, the creators of Liggett's experimental XA cigarette (A.D. Little scientist Dr. Charles Kensler and Liggett Director of Research James Mold) sought to present a paper relating to the XA at a public International Cancer Congress, and to publish the paper in the scientific journal Science. Biological research on the XA had convinced Liggett that the cigarette was less carcinogenic than traditional cigarettes. Company management agreed to allow the presentations. However, Liggett's attorneys did not give approval for the paper to be presented or published, and it was not allowed to go forward.

2162. Philip Morris. In 1980, William Dunn, a Philip Morris Principal Scientist, wrote to Robert Seligman, Vice President for Research & Development at Philip Morris. In the letter Dunn attempted to explain to Seligman why the lawyers had previously limited and would

continue to limit the research that could be conducted by industry scientists. He stated that psychopharmacology of nicotine "is where our attorneys least want us to be, for two reasons." As Dunn warned, despite the fact that "[w]e are now being allowed to conduct research on the immediate affects of nicotine . . . we must not be visible about it." Dunn was quite blunt about the secret nature of research in this area when he stated: "[o]ur attorneys, however, will likely continue to insist upon a clandestine effort in order to keep nicotine the drug in low profile."

2163. In December 1989, Steven Parrish, former partner at Shook, Hardy & Bacon and Vice President of Philip Morris Corporate Scientific Affairs, received a letter about a funding proposal for research which stated that "Dr. Syrjanen has deleted all references to cigarette smoking and no longer plans to pursue the possible role of smoking in the development of cervical cancer." The letter also stated that "[f]uture considerations suggest that we may wish to be in a position of being able to say the company scientists, not lawyers, reviewed and approved the proposal based on scientific content and merit" and raised the issue of whether Philip Morris should require access to "pre-publication manuscripts" and regular visits to be sure research was proceeding consistent with the proposal (as modified to exclude study of smoking's role in cervical cancer).

2164. In March 1990, Covington & Burling wrote to Philip Morris about a possible recommendation that Philip Morris's Science & Technology research plan "should be developed with input from legal, corporate affairs, et cetera, to ensure that the program of sponsored research is consistent with product liability, regulatory and public relations considerations."

2165. In September 1992, when Steven Parrish was general counsel for Philip Morris,

he retained control (for a period of time) over "approval for all new S&T [Science & Technology] projects." Parrish included Philip Morris's Richard Carchman, Vice President of Research and Development and Engineering, and James L. Charles, Vice President of Research, in the review process to get scientific recommendations, but made the ultimate decisions himself.

2166. R.J. Reynolds. In many instances, the R.J. Reynolds legal department had substantial input into the content of the research documents prepared by its research and development staff, often suggesting new language related to the interpretation of the findings contained in the document.

2167. In 1982, G. Robert DiMarco, head of research and development at R.J. Reynolds, expressed his belief that lawyers were improperly controlling the course of scientific research at Reynolds. As summarized by an in-house R.J. Reynolds lawyer: DiMarco "believes that this [research regarding safer cigarettes] is the prudent/responsible thing to do but has been told by the 'lawyers' (Ed Jacob) that he can't do this work." DiMarco also made comments to the in-house lawyer to the effect that "rigid legal positions . . . had restricted the proper functioning of the R&D Department." DiMarco's reflected the reality as set forth in a document prepared by Reynolds in-house lawyers in which they indicated that DiMarco would have to accept that "the Law Department will be an important part of the R&D 'team' on all projects of this nature. No work in these areas will be commenced until a protocol (setting forth the purpose, steps and procedure to be followed) is drafted and approved by the Law Department. Thereafter all first drafts of written work will also be reviewed by the Law Department." The document further, "It should be made very clear to Dr. DiMarco that, while he will have an input, the 'medical research

program' will not be directed or controlled by him" (emphasis added).

2168. On December 31, 1985, industry counsel issued Volume III of "RJR Research and Development Activities Fact Team Memorandum" which included Section IX on "Monitoring Smoking and Health Literature" and Section X on "Management and Legal Supervision and Control of R&D Activities." Lawyers summarized all pertinent documents, depositions, and attorney interviews with key R.J. Reynolds employees from 1950 through 1985. Section IX detailed "the function of the R&D library," the roles of R.J. Reynolds scientists Alan Rodgman and Frank Colby, and "the procedures by which management was kept aware" of health issues. Section X detailed management and attorney oversight of Research and Development and "publication controls imposed on . . . researchers."

(ii) "Independent" Scientists and Suppression of Nicotine Research

2169. The lawyers on the Committee of Counsel also controlled research conducted by allegedly "independent" scientists. In the 1970s the tobacco manufacturers sponsored research at Harvard University. The funding of this research was controlled by the Committee of Counsel and executives of the companies. A 1976 letter from senior industry counsel, David Hardy, states that:

In Bill Shinn's letter to you of May 21, he solicited at my request, any observations or comments that you may have with regard to the renewal of the Harvard University project. This project has been handled in the past by the Committee of Counsel and the executives of the companies, but I wanted to find out if any member of the Research Liaison Committee had any observations.

2170. Gary Huber was the principal investigator in charge of the research program at Harvard University relating to smoking and health. The program was funded in part by a five-year grant, and a three-year extension of that grant, from the tobacco industry. Huber has stated that, in approximately 1980, he met with tobacco industry lawyers in a hotel in Boston who told him that his research was "getting too close to some things." Huber identified these attorneys as lawyers from Shook, Hardy & Bacon, as well as lawyers from Lorillard and Brown & Williamson.

2171. In confirming that industry lawyers controlled the funding for his research, Huber has stated as follows:

- Q. Were the [Harvard] studies important information, in your opinion, when you reported those findings to scientists?
- A. Yes.
- Q. An did you stress their importance to industry officials?
- A. Very much so.
- Q. And did you want to go forward and do further studies with animals?
- A. Absolutely.
- Q. Why?
- A. Well, we found - - we found very important results and we felt that they should be pursued and they had impact on a number of very serious and important considerations that deserved answers.
- Q. Was money forthcoming from the cigarette company sponsors later for you to complete your animal studies after Harvard?
- A. It was promised, but it never came.
- Q. Were you, in fact, ever able to finish your experiments?
- A. No.

...

Q. Did you ever have a meeting in a hotel in Boston with industry officials who expressed concern that your research was, quote, "getting too close to some things," end of quote?

A. Yes.

Q. And who was that, sir?

A. It was with the industry attorneys.

2172. Defendants' lawyers have attempted to prevent research on nicotine addiction and nicotine manipulation issues. Given that the issue of nicotine addiction was potentially explosive in smoking and health litigation, lawyers began their attempts to curtail or direct the research. As a 1980 Tobacco Institute document stated: "Shook, Hardy reminds us, I'm told, that the entire matter of addiction is the most potent weapon a prosecuting attorney can have in a lung cancer/cigarette case. We can't defend continued smoking as 'free choice' if a person was 'addicted.'"

2173. At a 1983 meeting of research directors, BATCo and Philip Morris representatives noted "possible legal implications" of certain research. A document memorializing the meeting stated:

[T]he role of nicotine, at the relevant lower range of nicotine dosage, in perpetuating the smoking habit [was] a particularly sensitive area for the industry. . . . If any study showed that nicotine was, or was not, associated with perpetuating the smoking habit, industry could well be called upon to reduce or eliminate nicotine from the product. (A heads we lose, tails we cannot win situation!).

2174. Edwin Jacob, long-time tobacco industry counsel, "advised a total embargo on all

work associated with the pharmacology of nicotine" in a meeting with the European tobacco industry. Jacob's advice was based in part on "[t]he pending California lawsuit which indicted nicotine as an addictive substance."

(iii) Admissions and Internal Complaints Regarding Lawyer Control and Manipulation of Science

2175. A 1976 internal memo by a scientist at BATCo, S.J. Green, discusses the extent to which "legal considerations" dominated scientific research:

The public position of tobacco companies with respect to causal explanations of the association of cigarette smoking and diseases is dominated by legal considerations. . . . By repudiation of a causal role for cigarette smoking in general they [the companies] hope to avoid liability in particular cases. This domination by legal consideration thus leads the industry into a public rejection in total of any causal relationship between smoking and disease and puts the industry in a peculiar position with respect to product safety discussions, safety evaluations, collaborative research etc.

2176. The tobacco industry's own characterization of a 1977 Brown & Williamson document describes Brown & Williamson's General Counsel as attempting to prevent or curtail CTR funded research which he believed was "putting the industry at risk." The danger he was that "if such tests are conducted, and the results were negative for the industry, it would be a major liability in legislative hearings or in litigation."

2177. Handwritten notes from a Lorillard document dated April 21, 1978, contained the heading "Scientific Research Liason [sic] Committee" and stated: "Should re-convene because:

1) We have again 'abdicated' scientific research directional management of the Industry to the

'Lawyers' with virtually no involvement on the part of scientific or business management side of the business. 2) Lorillard's management is opposed to the total Industry future being in the hands of the Committee of Counsel - - it's reminiscent of late 1960's when Ramm's group ran the TI, CTR and everything else involved with Industry's public posture."

2178. In an undated memorandum written by lawyers regarding "Considerations Concerning Ingredients" for R.J. Reynolds, the authors noted, "A recent memo by a Lorillard employee (Alex Spears) to Dr. Hayes at RJRT suggests that in 1984 the Committee of Counsel thwarted the industry scientists' desires to assure the safety of the product by testing ingredients adequately."

(iv) Decisions Regarding Research and Publication Were Based upon Litigation Concerns and Desires to Enhance Public Relations, Not Scientific Judgment

2179. A letter dated May 2, 1963 from a White & Case attorney to Addison Yeaman of Brown & Williamson acknowledges Yeaman's letter of April 29, 1963 and its enclosure. The White & Case letter noted: "I have carefully considered the draft of a proposed report prepared by you in cooperation with Dr. Robert B. Griffith [Director of Research at Brown & Williamson], and I am of the opinion that, with the exception explained below, it contains no material which would prove detrimental to the defense of a lung cancer case." The White & Case attorney urged Yeaman to avoid any "implied admission" because "with the passing of time, the defenses of assumption of risk and contributory negligence will loom increasingly important; yet the validity of these defenses is being whittled down by tobacco company utterances – to the effect that there

is no risk, or that it is remote."

2180. On April 20, 1971, Ralph Rowland, an R.J. Reynolds scientist, sent an interoffice memo to managers and section heads concerning rewards and recognition procedures discussed at a management meeting held March 22, 1971, and forbidding publication of certain types of papers due to the "intangible legal situation."

2181. On November 3, 1971, Helmut Wakeham sent Philip Morris inter-office correspondence to Alexander Holtzman, an Assistant General Counsel, Frank Saunders of Philip Morris's Corporate Affairs office, and Clifford Goldsmith, President of Philip Morris, recommending release for publication at the CORESTA/TCRC Conference in October 1972 a manuscript entitled "Puff-by-Puff Determination of Carbon Monoxide, Cyanides and Aldehydes in the Gas Phase of Cigarette Smoke," which was originally completed about a year earlier. Wakeham explained that two year delay was to prevent the FTC Testing Laboratory from establishing specifications and/or restrictions on gas phase delivery of cigarettes.

2182. On May 12, 1972, Helmut Wakeham prepared a draft memo to Joseph Cullman III, Chairman of the Board of Philip Morris, on an "Industry-Sponsored Smoke Inhalation Program" which was being considered for several different types of animals and would cost \$1,500,000 per year for five years in order to provide the industry "with a defensive position in the field of smoke inhalation" (emphasis added).

2183. On October 17, 1973, in debating whether or not to give a grant for a proposed research program at the University of California, R.J. Reynolds scientist Frank G. Colby

suggested to R.J. Reynolds Director of Research Murray Senkus that "[a] decision whether or not to recommend a substantial Tobacco Industry grant for the above program should be based more on public relations than on purely scientific grounds."

2184. On June 24, 1974, Alexander W. Spears of Lorillard, in a confidential memo, acknowledged Defendants' joint industry effort to fund smoking and health research for public relations purposes: "Historically, the joint industry funded smoking and health research programs have not been selected against specific scientific goals, but rather for various purposes such as public relations, political relations, position for litigation, etc. Thus, it seems obvious that reviews of such programs for scientific relevance and merit in the smoking and health field are not likely to produce high ratings. In general, these programs have provided some buffer to the public and political attack of the industry, as well as background for litigious strategy."

2185. Charles W. Nystrom, assistant to Colby at R.J. Reynolds, prepared a job description dated May 1, 1978. The description was for a "Research Section Head Scientific-Legal Information Section" which stated, in part: "Primary areas of responsibility are to search, interpret, and evaluate information and ideas to protect the Company in the area of the smoking-health controversy."

2186. A September 28, 1978 document contained notes of an R.J. Reynolds representative's meeting with German industry representatives near London Heathrow Airport on September 11, 1978 for talks "devoted mainly to those aspects of the German nicotine research . . . [affecting] the legal position of RJR in the United States." The document noted that R.J. Reynolds "forcibly and deliberately . . . [extracted] from them an 'unequivocal promise' that

before any effort which was made to commence or in any other way start a specific research project RJR . . . would have a minimu[m] of three months to evaluate such proposals."

2187. On July 27, 1983, Patrick Sirridge, a Shook, Hardy & Bacon attorney, sent a memorandum to Fredric S. Newman, a Philip Morris International attorney, regarding several reports from the Philip Morris Research Center. He noted:

Research engaged in, as well as some possibly under consideration, by Philip Morris has undesirable and dangerous implications for litigation positions the industry takes in regard to smoking behavior. The pharmacological nature of the research implies strongly a view of the importance of nicotine. What is worse, research reports under Philip Morris's sponsorship contains claims of physiological tolerance to nicotine, as well as claims of unequivocal demonstrations of reinforcement by nicotine in animals. This kind of research is a major tool of our adversaries on the addiction issue; the irony is that industry-sponsored research is honing that tool. In the final analysis, the performing and publishing of nicotine related research clearly seems ill-advised from a litigation point of view.

2188. On March 3, 1988, R.J. Reynolds prepared the "Independent Scientists Program" to identify non-R.J. Reynolds scientists who would cooperate with its litigation and public relations strategies.

2189. On November 15, 1988, Defendants considered the dangers of issuing a new proposed Frank Statement with their law firms such as Arnold & Porter and Shook, Hardy & Bacon. It was noted that while the new Frank Statement made it appear that the industry's position on smoking and health had changed over the years, this had not happened. Further, they argued the new statement could hurt the industry in its litigation strategies. An attorney, David

R. Kentoff, noted "the basic problem with the new Frank Statement is that it sets forth a revisionist and internally inconsistent view of history. . . . If it is still the industry's 'belief' that smoking is not injurious, how can it now contend that it is not a member of the Flat Earth Society? . . . [T]he client should be advised to share its plans for the new Frank Statement with National Coordinating Counsel. Certainly, the statement has potential litigation implications which are of legitimate interest to all members of the industry."

2190. Liability litigation concerns drove Liggett's research program throughout the 1990s and controlled the type of research that would be done and whether or not research would be done. Dennis Dietz, Liggett's Manager of Scientific Issues from 1991 - 1999, testified on July 1, 2002, that "instead of doing independent research into the question of smoking and health, the Company focused on insuring its products were no less harmful than those of its competitors." Dietz had regular product liability meetings with Liggett's outside counsel. When Dietz began working for Liggett he had an "orientation" meeting with outside counsel wherein they "open [ed] his eyes up to the fact that we were involved with research that wasn't just pure, really, academic, that we need to be focused on all these issues." Dietz explained that the issues he was referring to were "health related issues . . . that potentially could – could impact on – on product litigation."

G. Concerted Efforts Not To Develop or Market Potentially Safer Cigarettes

2191. The Cigarette Company Defendants have failed to develop, market, and honestly promote various products they believed were less hazardous than the cigarettes they currently market. They had the scientific ability to develop certain alternative products that might have been less hazardous alternatives to conventional cigarettes. Yet for decades the Cigarette Company Defendants have conspired by a "Gentlemen's Agreement" to retard, if not halt or prevent, efforts to make a cigarette that potentially reduces the health risks caused by smoking. They realized that their collective self interest to maintain the status quo predominance of the conventional cigarette in American society was more valuable than any single cigarette company unsettling the market by successfully selling a truly risk-reducing product.

2192. The Cigarette Company Defendants have long known that consumers would willingly purchase "less hazardous" or "reduced risk" products. For instance, in an R.J. Reynolds interoffice memorandum from R.A. Lloyd, Jr. to Mike McKee, Lloyd commented on recent patents applied for or granted to Philip Morris and Imperial Tobacco Company:

It is quite likely that smoking devices similar to those described in these patents or other new products perceived as 'safer' will be introduced to the marketplace within the next few years by major tobacco companies. The company that can introduce such products, which also supply a degree of user satisfaction which approaches that of current cigarette products, will become the dominate [sic] company in the industry almost over night. It is reasonable to assume that the company who introduces such a product might capture as much as 25 share points in the first year if supply could keep pace with demand.

2193. Notwithstanding this powerful combination of consumer demand and the cigarette manufacturers' potential ability to meet it, the Cigarette Company Defendants have, in fact,

limited and slowed the input of resources to this task, withheld some cigarettes with believed-to-be-safer features from the market entirely, and intentionally ineffectively marketed others.

2194. The dearth of innovation was initiated by the informal pact referred to in the industry as the "Gentlemen's Agreement." In March 1983, high ranking R.J. Reynolds scientists Alan Rodgman and Frank Colby described the parameters of this longstanding agreement that has existed:

Throughout the domestic industry,

...

[a]ny company discovering an innovation permitting the fabrication of an essentially 'safe' cigarette would share the discovery with others in the industry; and

No domestic company would use intact animals in-house in biomedical research.

2195. The scope of this agreement has chilled innovation. Despite the growth of in-house research facilities in some companies, Cigarette Company Defendants continued to adhere to a policy of avoiding the marketing of any potentially significant risk-reducing innovation that could be to one participant's private benefit. In 1981, scientists at Temple University made a research proposal to R.J. Reynolds entitled "Selective Removal of Oxidants from the Tobacco Mainstream Smoke Aerosol." In an October 26, 1981 memorandum concerning the Temple proposal, Colby wrote:

There is a clear-cut agreement among all U.S. cigarette manufacturers that any scientific discovery made within the companies, or otherwise sponsored by a single company, which might have a positive impact on the smoking and health controversy, would have to be freely shared, without any costs to the other manufacturers. There would, therefore, be no incentive for R.J. Reynolds to sponsor the Cohen project. This applies to

any other product development oriented research by a medical institution to be sponsored by a U.S. tobacco company.

2196. All of the Cigarette Company Defendants were aware of and participated in this agreement, for they all understood the premise underlying it – that safer cigarette research and development posed a great threat to the industry's "open question" smoking and health position. As succinctly articulated by Patrick Sheehy, Chair of BATCo and BAT Industries, in a confidential internal memorandum in December 1986: "In attempting to develop a 'safe' cigarette you are, by implication in danger of being interpreted as accepting that the current product is 'unsafe' and this is not a position that I think we should take. . . . The BAT objective is and should be to make the whole subject of smoking acceptable to the authorities and to the public at large since this is the real challenge facing the industry" (emphasis added).

2197. By the same token, in 1988, Geoffrey Bible, then President and CEO of Philip Morris International, condemned even the public acknowledgment of the notion of reducing risk. Decrying a BATCo employee's referring to one of its products as "less harmful," Bible wrote, "The use of the words 'less harmful' and 'harmful components' has stunned us and I just cannot understand how tobacco companies can make such comments."

2198. The Cigarette Company Defendants have at times enforced this agreement aggressively, both within and without. Detailed below, examples include: a controversy between Philip Morris and BATCo arising from when they each accused the other of grandstanding over Brown & Williamson's Barclay cigarette; reports that Philip Morris and Brown & Williamson each threatened Liggett not to bring to market its palladium catalyst "Project XA" cigarette technology; and R.J. Reynolds' current efforts to try to intimidate Liggett and prevent it from

marketing Omni as a safer cigarette.

2199. One clear manifestation of the Gentlemen's Agreement has been an unwillingness by the Cigarette Company Defendants to bring to market products and innovations that they had researched and developed internally to the point of believing that the products presented at least the prospect of reducing risk once in the hands of the smoker. As detailed further below, every Cigarette Company Defendant has acted similarly in this regard – whether by stifling small innovations affecting a single component or full product lines.

2200. By the early 1960s, the Cigarette Company Defendants' documents evidence their awareness that tobacco combustion caused the delivery of harmful substances to the smoker, and awareness of the potential health benefits of a product that could deliver nicotine without the results of combustion. In fact, as early as 1957, Philip Morris knew that reducing the burn temperature of cigarettes would decrease the levels of certain health-threatening hydrocarbons contained in smoke, and had identified potential methods of doing so, such as: using catalysts; modifying the width of the cut and of the blend; controlling access of the air to burning coal; altering the cross-sectional size and shape of the cigarette; and using a non-catalytic filling material to conduct heat away from the coal and reduce its temperature. No product exploiting this knowledge was forthcoming from Philip Morris for forty years, until it began test marketing the electrically-heated Accord in Richmond, Virginia, which still remains Accord's only test market in the United States. Similarly, BATCo, the parent company of Brown & Williamson, developed a prototype non-burning cigarette, code-named "Ariel," during 1962–1964. The Ariel prototype was disclosed publicly in two patents issued in 1966 and 1967, but never marketed.

Indeed, the concept of a non-combustion cigarette was never used in any fully marketed product, and did not even reach test market status until R.J. Reynolds introduced its Premier for test marketing for less than a year beginning in 1988.

2201. When the link between smoking and adverse health consequences became more widely known by the public, the Cigarette Company Defendants realized they had to slightly change tactics but still acted collectively rather than independently. In short, they had to take steps to pacify critics and consumers clamoring for a solution by convincing them: (a) that the efforts they had taken so far (e.g., "light" cigarettes) had reduced risk; and (b) that they were actively seeking other methods to reduce risk further. So long as the Cigarette Company Defendants appeared to be trying to develop reduced risk products, they could continue to sell their conventional products.

2202. Industry smoking and health research efforts, for the most part, have been reactive in nature. Rather than trying to identify underlying causal mechanisms, the Cigarette Company Defendants instead waited for the public health community to develop theories of harm, and responded to them in a unified manner.

2203. As early as the 1960s, the Cigarette Company Defendants conspired to cooperate on safe cigarette research and development, collectively (rather than competitively) deciding which problems to attack and what "amount of effort" should be applied to attacking them – with the goals of avoiding the political embarrassment of one company appearing to be ahead of the rest of the industry, as well as controlling the public's perception of the problem.

2204. On occasion, the Cigarette Company Defendants have offered new products or

product innovations with features they believed, or told the public they believed, could potentially reduce the risk of the harms caused by cigarettes. However, they did so in a manner intended to avoid any threat to their financial situation in terms of sales, legal liability, or government regulation.

2205. Despite investing at times tens of millions of dollars in reduced risk innovations, no Cigarette Company Defendant has aggressively competed against the others on health claims when they did step into that part of the market, with the exception of their deceptive marketing of "low tar" cigarettes (discussed in Section IV.D). In some cases, even after they drafted "reduced risk" marketing campaigns for such products, they ultimately failed to promote them that way at all, or at least aggressively and effectively as such. As a result, they have not given consumers a reason to break from long held smoking rituals and brand loyalties by telling them that trying something different may reduce their risk of fatal or chronic disease. This was the case, for example, with: Philip Morris's Saratoga – a "physiologically superior product" developed in the 1960s; with Brown & Williamson's "Fact" – a low-gas cigarette; and with R.J. Reynolds's Premier.

2206. Even when one of the Cigarette Company Defendants has made reduced risk claims about one of its products, it has done so in such an indirect fashion as to be meaningless, confusing, and/or virtually unavailable to consumers. Apart from their misleading representations regarding their cigarettes' FTC tar and nicotine yields (discussed in detail in Section IV.D), the Cigarette Company Defendants refuse to publicly compare their new products to their own conventional products or products sold by other companies. Indeed, the Cigarette

Company Defendants fail to put the processes in place to confirm their conclusions, such as conducting long term epidemiological studies (indeed, few if any of the Cigarette Company Defendants even employ an epidemiologist). They fail to make such comparisons or conduct such studies because to do so would be an admission that their conventional products are harmful. Not only would this compromise their litigation position, it would also invoke the wrath of the other Cigarette Company Defendants, who act quickly to challenge the validity of the reduced risk claims.

2207. Frequently, the Cigarette Company Defendant offering the innovation has blamed FDA and FTC regulation that supposedly prevents it from competing directly on its claims. This is incorrect; potential regulation does not stop it from making such claims. Regulation stops it from making claims that are invalid and may be exposed as such under careful, independent scrutiny.

2208. Finally, the Cigarette Company Defendants have exploited their knowledge that smokers' perception that the Cigarette Company Defendants' purported innovations reduce risk is as important as reality, by marketing products that give an impression of reduced risk that the cigarettes do not actually accomplish. The result of such conduct, however, is not just that people are smoking cigarettes that are not any safer or as safe as they think they are. This conduct also persuades smokers who want to quit to use these products instead of quitting, and induces people to start smoking who would not otherwise do so, under the reasoning that a reduced risk product does not pose the same harm. Detailed below, there is evidence that R.J. Reynolds envisioned this scenario in regard to its "GTC" work, which became Eclipse.

2209. While the cigarette companies offer the reward of "reduced risk" with one hand, they are using the other hand to hold on to smokers more strongly by using nicotine boosts, perhaps knowing that the taste of the new products and the watered-down promise of less risk alone might not keep them. There is evidence of such ideas arising as early as the 1960s.

(1) Philip Morris

2210. Philip Morris has repeatedly failed to implement into its marketed products feasible technologies that could reduce the delivery of known toxic substances in cigarette smoke, and thus potentially decrease the incidence of adverse health effects for smokers. In numerous instances, Philip Morris has rejected or failed to incorporate promising design or component features for reasons unrelated to their scientific or technological feasibility. Instead, Philip Morris provided its ever-growing Research and Development division – now at 600 employees, including 325 scientists, fifty of which have Ph.D.'s – with a large budget (currently over \$200 million) and set it on a course of endless, duplicative, and repetitive study. It is no accident that Philip Morris has consistently concluded that every option that could offer real potential benefits – reductions in the incidence of cigarette-caused diseases – is insufficiently effective, too expensive, and/or commercially unacceptable. Moreover, for those innovations that chemical or biological tests suggested could potentially reduce hazards, Philip Morris failed to integrate the technologies into marketed cigarettes and to test whether such features in fact caused less disease for smokers. For those design changes that Philip Morris actually did incorporate, Philip Morris failed to conduct the tests necessary to confirm whether they offered any real reduction in disease-causation for smokers.

2211. While Philip Morris's approach has enabled it to claim a commitment to finding ways to make cigarettes less hazardous, Philip Morris has until very recently chosen not to assess whether any of the relatively modest changes it has made to its cigarettes in the past four decades has actually resulted in a less hazardous product. The following discussion provides examples of Philip Morris's failure to meaningfully pursue, implement, market, and test products with components that have the potential to reduce the harms caused by smoking.

2212. Immediately following the publication of the 1964 Surgeon General's Report, Philip Morris scientists urged the company to be at the forefront of safer cigarette development, reduced risk advancement, and product testing. In a February 18, 1964 memo, chief scientist Helmut Wakeham urged the company to: (a) gain a competitive advantage by increasing in-house research on smoking and health issues and developing a "superior filter cigarette with acceptable taste having high gas-phase absorption and very low TPM [total particulate matter, or tar]" which would be "biologically approved on all major health questions"; (b) recognize that "health impact will surely be an important, perhaps the most important, basis for competition in the industry in the next few years"; (c) break up what he acknowledged to be "the common front approach of the industry through The Tobacco Institute and [the Tobacco Industry Research Committee ("TIRC")], [whereby] R.J. Reynolds advocates a joint front, sit tight, status quo approach"; (d) dispute those who say that carbon filters "do not have specific power to scrub the gas phase" in light of 1959 research findings; (e) establish "suitable biological approval specifications for all new smoking products"; and (f) individual companies should revert to doing their own research on smoking and health "if they expect to develop proprietary position for the health competition."

2213. Wakeham acknowledged Philip Morris's capacity and responsibility to conduct prospective studies to determine whether Philip Morris's different cigarette designs resulted in any differential incidence of disease in its users. In 1964, Wakeham argued that the industry, through TIRC/CTR, should sponsor an epidemiological study of the comparative health effects on smokers of non-filtered products versus filtered cigarettes:

The health value of filters is undersold in the [Surgeon General's] report and is the industry's best extant answer to its problem. The Tobacco Institute obviously should foster the communication of the filter message by all effective means. At the same time TIRC can profitably sponsor development for those areas where exceptions to the report's treatment have been made [earlier in the document]. Specifically, a prospective survey of filter vs. non-filter smokers is appropriate. . . . [T]he industry must come forward with evidence to show that its products, present and prospective, are not harmful. Medical research must be done for this purpose, as well as for judging the merit of work done outside the industry. The industry should abandon its past reticence with respect to medical research. Indeed, failure to do such research could give rise to negligence charges.

2214. Wakeham further acknowledged the need to perform established chemical and biological tests on the finished versions of the products as they were sold commercially by Philip Morris, not just prototypes or approximations of those products. In a memorandum of November 15, 1968, Wakeham described the obligation of Philip Morris to satisfy FDA requirements of safety and efficacy of its products. FDA requires showing of safety and efficacy of the product that is intended to be sold, not a non-identical variation thereof. Wakeham wrote, "We must know more about our products than anyone else so that we are not surprised when our competitors or our antagonists publish information about our products. We must know how our products perform in conventional tests regardless of whether or not we believe the tests to be

significant."

2215. Yet in testimony in the Blue Cross/Blue Shield case in May 2001, longtime Philip Morris scientist Jerry Whidby, designated as a Philip Morris expert in the instant case, confirmed that Philip Morris never conducted such biological testing of commercial cigarette brands:

Q. In the 1970s and 1980s and 1990s, while you were at Philip Morris, did Philip Morris do testing on commercial branded cigarettes like Marlboro and Winston, biological testing?

A. No, we did not.

...

Q. Did you ever see or hear, see or hear of any biological tests that were conducted by INBIFO that compared various whole products, commercial brands of cigarettes like Winston and Marlboro?

A. No, I did not.

...

Q. Let's take another hypothetical. Marlboro Reds compared to Marlboro Lights. Your claim or your testimony is that a cigarette with less tar is safer than a cigarette with more tar; is that correct?

A. That's my belief.

Q. Has Philip Morris ever conducted a test to determine whether in fact a Marlboro Light is any safer, any more safe or less safe than a Marlboro Red?

A. No, we have not.

2216. Another expert designated by Philip Morris in the instant case, former employee Richard Carchman, offered similar deposition testimony in this case, stating that "the [Project] Parameter test [conducted in 2001] is the first time Philip Morris commercial brands were subjected to these biological assays [for cytotoxicity]."

Q. Are these long-established assays?

A. They're long established within Philip Morris and they're within the OECD Guidelines which are accepted by the FDA and the Institute [INBIFO] is a GLP [Good Laboratory Practices] certified

.....

Q. Prior to this study the Project Parameter, has Philip Morris

tested any of its commercial brands via these assays?

A. With the Ames and cytotoxicity to my knowledge this is the first time Philip Morris has examined its commercial brands with these, with these assays.

2217. Philip Morris, seeing the potential profits to be attained from the successful marketing of a "healthier" cigarette, downplayed the need to develop a product that was actually less hazardous, let alone to pursue scientific proof to support such a product. In a June 1966 report by Philip Morris researcher Myron E. Johnston, Jr., sent to top scientists Wakeham and Seligman, Johnston noted: "If we could develop a . . . 'healthy' cigarette that tasted exactly like a Marlboro, delivered the nicotine of a Marlboro, and was called Marlboro, it would probably become the best selling brand." In that report, Johnston used "as a working definition of a health cigarette the definition commonly used in the Research Center: All cigarettes about which health claims have been made or implied." However, in recommending that Philip Morris develop a new filter design, Johnston stated that, since "the illusion of filtration is as important as the fact of filtration," a novel filter method "need not be any more effective" than current filters.

2218. On September 9, 1969, Wakeham reviewed British mouse skin painting data and: (a) noted that this was the best test for measuring biological activity for cigarette smoke -- notwithstanding the tobacco industry's public criticism of the value of this method in assessing the potential health effects of cigarette smoke; (b) found results to show a dose-response relationship, and to show that reconstituted tobacco cigarettes "made from whole leaves but not containing excess stems" produced fewer tumors than did condensate from flue-cured cigarettes, which suggested that the former might play a positive role developing a safer product; and (c) urged Philip Morris to begin in-house testing of this type on its own products.

2219. Wakeham's recommendations were largely ignored. One limiting factor for Philip Morris was the "Gentlemen's Agreement" among the manufacturers, which limited the type of in-house research the companies could conduct. In a draft of an internal 1968 memorandum titled "Need for Biological Research by Philip Morris Research and Development," Wakeham wrote:

We have reason to believe that in spite of gentlemen [sic] agreement from the tobacco industry in previous years that at least some of the major companies have been increasing biological studies within their own facilities. . . . [B]iological studies proving the safety of the product [are] essential [to the introduction of any product to the market.]

2220. This reference was no mistake. Another version of this memorandum, dated November 15, 1968, restated Wakeham's proposal to Philip Morris executive Clifford Goldsmith that Philip Morris fulfill its obligation to test its products in contravention of the industry-wide policy: "We have reason to believe that while this proposal to carry out biological research and testing may seem a radical departure from previous policy and practice, we are in fact only advocating that which our competitors are also doing."

2221. Charcoal Filter. An example of Philip Morris's conduct in the area of less hazardous cigarette research is the company's limited and frequently delayed employment of charcoal or carbon filter technology. By 1959 at the latest, the industry knew of the potential for filters containing charcoal or activated carbon to absorb harmful constituents of smoke. The February 18, 1964 report from Wakeham to Philip Morris senior management titled "Smoking and Health Significance of the Report of the Surgeon General's Committee to Philip Morris Incorporated," stated that "[t]he [Surgeon General's] report gives inadequate recognition to the selective adsorption of certain gas phase components from smoke which affect pulmonary

cleansing mechanisms (viz., mucus flow, cilia activity). The statement that carbon filters previously employed do not have specific power to scrub the gas phase ignores pioneer work at American Tobacco reported in Tobacco Science, Vol. 3, pp. 52-56, 1959."

2222. Indeed, by 1964, Philip Morris had test-marketed the charcoal-filtered Saratoga brand, which Philip Morris scientists considered "[p]hysiologically . . . an outstanding cigarette."

2223. Internal chemical research continued. Results of research Philip Morris conducted in 1969 on the biological effects of whole fresh smoke and the gas phase of cigarette smoke in unfiltered and charcoal-filtered cigarettes included the finding that carbon "effectively . . . filters . . . the biologically active components of smoke."

2224. Similarly, when in 1974 Philip Morris developed a prototype product that it believed would result in "proven" lowered biological activity, it recognized that "smoke inhalation tests may be included as criteria for a 'safer cigarette'" and proposed use of a charcoal filter to aid in the reduction of certain gases.

2225. Despite this recognition of the value of charcoal or carbon filters, however, Philip Morris (and the other Cigarette Company Defendants) have sold very few brands that contain activated carbon or charcoal filters. For example, the only brands that Philip Morris has sold with charcoal in the filter are: one packing of one brand of Parliament – Parliament Lights 100; Lark; and Multifilter, a brand launched in 1964 as the reformulated version of the Saratoga, that had "good taste and good physiological performance," but is no longer sold. A smoker of Marlboro or Marlboro Lights – or Parliaments other than Lights 100 – receives higher levels of aldehydes, a substance that Philip Morris scientists had acknowledged by the 1960s was harmful

but controllable by charcoal filters, than a smoker of Parliament Lights 100.

2226. Despite its decades-old understanding of the role of activated charcoal, in late 1997, Philip Morris re-initiated a research project with the objective of understanding "effects of carbon filters on gas phase deliveries" and included among its continued filtration research a project to "[d]evelop model of carbon adsorption."

2227. In the late 1990s, when Philip Morris finally tested commercial brands of cigarettes under conventional tests for cytotoxicity, it confirmed that Parliament's charcoal filter resulted in lower levels of cytotoxicity. Further, an October 9, 2000 study by Philip Morris researchers yielded data demonstrating that, compared to the standard research cigarette, which does not have a charcoal filter, a cigarette with charcoal in the filter reduced the delivery of several chemicals in cigarette smoke, including 2-nitropropane, hydrogen cyanide, acetylenitile, proprionaldehyde, acrolein, acetaldehyde, formaldehyde, isoprene and 1,3-butadiene.

2228. Also in the late 1990s, Philip Morris undertook its Selective Constituent Reduction Program ("SCoR" or "SCRIP") to develop a conventional looking, lit-end cigarette product (unlike the electrically heated Accord device, discussed further below) that removes harmful constituents from the cigarette smoke. For this product, Philip Morris has included a filter containing activated carbon, further confirmation of what it has known since the 1950s – that a charcoal or charcoal-like filter is an effective design feature to reduce the delivery of gas phase components, including harmful aldehydes, to the smoker.

2229. Yet despite all this knowledge, Philip Morris asserts that further research is necessary before implementing the regular use of charcoal filters and marketing them to

consumers as reducing risk.

2230. Corporate Restrictions on Marketing Potentially Safer Products. Philip Morris's decision to elevate corporate profits over the effective implementation of potentially less hazardous design innovations is also evident in a 1958 document by J.E. Lincoln which discussed Philip Morris's plan to turn the planned removal of benzpyrene (one harmful component of cigarette smoke that had gotten recent attention in the press) from their cigarettes into a marketing campaign:

BENZPYRENE MUST GO. . . . Other ingredients that might be harmful must also go, but benzpyrene should go first because it is the one that seems to be under most suspicion at the moment. . . . I think we could exploit it without ever saying a word about it in paid advertising. One article in the Journal of the American Medical Association would start the ball rolling.

The proposed ad campaign was as follows:

We would go on to describe more or less truthfully the dramatic story of our efforts to catch up and stay caught up in the high filtration field. . . . close by pledging to Parliament (Marlboro) smokers that from now on they could be assured that Parliament (Marlboro) would immediately bring them any tar and nicotine reducing innovations that were consistent with good smoking and that we would do this no matter how much effort and expense were required. . . . the attempt would be made to build an image of the brand as a brand that was made and sold by people who were genuinely concerned about the health of their customers.
(Emphasis added).

2231. In sharp contrast to this ad image, however, the 1958 document noted that if benzpyrene removal caused any "disturbance" in the taste or character of the cigarette, removal of benzpyrene should not occur in Philip Morris's established brand cigarettes, but "would have to be tried on a new brand."

2232. In November 1961, Philip Morris had conducted sufficient research to conclude that a "medically acceptable low-carcinogen cigarette may be possible." Although Philip Morris never publicly released the results of this research, the Research & Development department at Philip Morris continued research into less hazardous cigarettes in order to be prepared to compete only in the event that another cigarette company marketed such a product. A Helmut Wakeham presentation to the Philip Morris board of directors in October 1964 noted:

[T]he Research and Development Department is working to establish a strong technological base with both defensive and offensive capabilities in the smoking and health situation. Our philosophy is not to start a war, but if war comes, we aim to fight well and to win.

2233. Nicotine Aerosol Product. Another example of Philip Morris's practice of identifying, selectively studying, abandoning, and periodically reviving research projects is Philip Morris's treatment of the idea of an aerosol cigarette. Cigarette smoke contains both particulate matter and gaseous components. In general, the particulate matter comprises the mix of substances that can be trapped on a filter, which can then be measured and evaluated, and constitutes the cigarette's "tar." By February 1972, Philip Morris believed it had substantial control over the content of the smoke delivered to smokers by its products, and could limit the delivery of substances in the particulate phase of smoke that it acknowledged were "unhealthful." In a memorandum memorializing an "Idea Disclosure for an Indirect Cigarette," a Philip Morris scientist described a product which could use indirect heat to generate and deliver to the smoker an aerosol. The researcher stated that "[t]he particulate phase of the aerosol is generated from pure substances and its composition is under full control; hence, it is capable of being made not

only not unhealthful, but positively healthful." (Emphasis added). In fact, this idea was not novel, and was already publicly known since the patents for BATCo's Ariel product were granted in the early 1960s. Nevertheless, Philip Morris has never actively pursued the idea of a such an aerosol product.

2234. In late 1993, Philip Morris briefly revived this technological approach through its "Ideal Smoke Program," which had as its mission developing "products that deliver only those components necessary to achieve market-place acceptable objectives and satisfaction." An outline for "research areas applicable to tobacco products only" stated that the objective was to "develop an aerosol delivery system for desired compounds only." According to this document, the program envisioned a product with "compounds attributing to taste and impact on large particles which will be trapped in the upper airways and nicotine on small particles which can reach the lungs to achieve the systemic nicotine dose desired."

2235. Another 1993 document concerning the Ideal Smoke Program, from a high-ranking scientist at INBIFO to Gerry Nixon, a scientist in Philip Morris's R&D Department with whom he worked closely, stated that among the "[d]esirable components, . . . [n]icotine and flavor components are perceived as essential." Again, however, Philip Morris has not pursued this approach through to commercial development.

2236. By the late 1970s, Philip Morris also had been researching the effect of adding platinum or other platinum group metals to cigarette filters, and has found that doing so significantly reduces some of the chemicals known to cause smoking-related diseases, such as aldehydes. Philip Morris also did Ames mutagenicity studies (laboratory toxicological tests for

mutagenicity) on tobacco that was burned with and without the addition of platinum, and found positive differences. Philip Morris has not, however, tried to market a cigarette with platinum filters.

2237. Technologies to Reduce Delivery of TSNAs. Philip Morris has engaged in a similar course of delay and never-ending research with regard to the issue of tobacco specific nitrosamines ("TSNAs"). By 1980, Philip Morris had developed at least three different technologies for lowering the oxides of nitrogen contained in reconstituted tobacco leaf (thereby reducing the formation of nitrosamines), which it deemed commercially and economically feasible. However, Philip Morris did not implement any of these technologies in the years after the technology was created.

2238. Philip Morris secured at least three patents on various denitrification processes. The first patent was for a denitrification process using electro dialysis; in December 1980, Philip Morris expected this patent to issue in 1981.

2239. In April 1978, Philip Morris scientist Bernard Semp filed a patent application for a second invention, a "process for dissimilatory denitrification of tobacco materials" (referred to as the "Semp process"). Philip Morris filed an amended application for the Semp process in August 1979, and in January 1986, Patent No. 4,566,469 was issued. The patent claimed an "improved process for the reduction of the nitrate content of tobacco materials via dissimilatory denitrification." The Semp process also utilized microorganisms, and stated that "[i]t is generally recognized that smoking products having lowered amounts of oxides of nitrogen present in smoke are desirable." The Semp patent further stated that "[s]moking articles prepared from the

treated tobacco materials deliver significantly lowered amounts of oxides of nitrogen on smoking. . . . [T]he provision of a shorter processing time for denitration is a significant economic advantage, particularly when operating on a commercial scale."

2240. In December 1980, Susan Dobberstein, a Philip Morris scientist, reviewed three different approaches that Philip Morris had to date developed to denitrify tobacco in a memorandum titled "Summary Report: Second Generation Process for Denitrification of RL [Reconstituted Tobacco Leaf]." The three methods were: (1) the microbial anaerobic fermentation process generally referred to as "naturally occurring denitrification" ("NOD"), that was the subject of the then-pending Semp application; (2) electro dialysis; and (3) an aerobic fermentation process ("NINO process"). Dobberstein compared the technologies on "product and process quality, financial comparison, and other considerations," for purposes of assessing commercial development. Dobberstein reported that:

- (1) the Semp anaerobic process resulted in the lowest NO [nitric oxide] yields;
- (2) consumer tests showed all three processes to be acceptable to the internal smoking panels used by Philip Morris to measure product "subjectives"; and
- (3) the Semp process required the greatest start-up costs – about \$100 million – but would be the second cheapest to run once implemented (\$14 million/year); while the electro dialysis process was the cheapest both in up-front investment (\$30 million) and would be the cheapest to operate (\$7 million/year).

2241. In 1981, Philip Morris scientist Vedpal Malik filed a patent application for a "thermophilic" process utilizing microorganisms for "reducing the levels of certain nitrogen-containing compounds in tobacco materials." This third patent issued in 1987 bearing Patent No. 4,685,478 ("Malik patent"). Like the Semp application (which was pending when the Malik

application was filed), the Malik patent stated, "It is generally recognized that reduced delivery of oxides of nitrogen in the smoke of tobacco products is desirable." The Malik patent further stated that the process covered by the patent:

[A]fford the production of smoking products having lowered amounts of oxides of nitrogen, and perhaps other oxides, in smoking without the possible addition of non-tobacco compounds to those products in a commercially effective and economically efficient manner. They also afford the production of other tobacco products having lowered amounts of nitrates and other nitrogen-containing compounds in a similarly effective and economical manner.

2242. In 1981, Semp further improved the NOD process, which Philip Morris preferred for its "potential for a lower cost process plus the fact that it was clearly novel compared to any of the early processes."

2243. Notwithstanding Dobberstein's evaluation that three processes were consumer-acceptable and commercially and economically feasible, and notwithstanding the 1981 development of another novel, cheaper NOD process, Philip Morris implemented none of these technologies to reduce the delivery of oxides of nitrogen to the smoker. Philip Morris claims that the process was abandoned in 1984 because it did not work consistently, even though it had patent applications stating to the contrary pending before the PTO. Indeed, a 1983 document states that NOD "[p]roduction feasibilit[y] was demonstrated."

2244. Further, Philip Morris was able to fix an odor problem with the NOD process that had presented an alleged impediment to its use. A November 14, 1983 report from a Philip Morris scientist copied to numerous Philip Morris employees including Max Hausermann, the head of Philip Morris R&D, Tom Osdene, Jim Charles, Cliff Lilly, Jerry Whidby, and William

Farone, reviewed a project designed to fix the problems with the NOD process caused by an odor that affected subjective qualities. Mitchell reported that "modification of the NOD process improved the subjective character of NOD RL-TC on internal panel tests" and that the scientists had demonstrated the "reproducibility of the process." Philip Morris has not, however, introduced a product employing this technology.

2245. By at least 1982, Philip Morris developed another way to reduce the oxides of nitrogen in its cigarettes – producing tobaccos that would deliver lower levels of oxides of nitrogen.

2246. Bright tobacco, also known as flue-cured tobacco, is one of the main tobaccos used in the cigarettes sold in the United States. Bright tobacco is traditionally cured by heating it in barns with propane heaters. Burley tobacco is the other main tobacco used. Burley tobacco, which is naturally higher in alkaloids that promote TSNA formation, is "air-cured." In a 1985 patent that Philip Morris submitted in 1982, Philip Morris described its discovery of a way to air-cure Bright tobacco and reduce harmful NO in smoke:

This novel tobacco, when formulated as a smoking article, such as a cigarette, and smoked, presents the aroma and taste of a blended tobacco smoking article and may be substituted in whole or in part for burley tobacco in blended tobaccos while substantially maintaining the subjective qualities of the burley tobacco and yet, as compared to the burley tobacco-containing blends, provides a reduced NO content in the smoke.

2247. This invention allowing substitution of air-cured Bright tobacco for burley tobacco offered a potential advance in reducing the delivery of harmful TSNA to smokers, because burley tobacco is naturally much higher in TSNA than Bright tobacco. However, Philip

Morris did not actively commit to incorporating this air-cured Bright tobacco into its marketed products.

2248. In 1985, Philip Morris had demonstrated its ability to use tobacco blend selection to "Deliver Adequate Nicotine and Reduced TSNA [Tobacco Specific Nitrosamines]." On April 1, 1985, Philip Morris scientists Sue Tafur and Ed Lambert wrote a memo to Edward (Ted) Sanders, a high-level Philip Morris scientist, which was copied to other Philip Morris scientists including Jim Charles, Robert Ferguson, Robin Kinser, and William Morgan, reporting on their experiment "to determine if it is possible to deliver adequate nicotine to MS [mainstream] smoke while reducing mainstream TSNA by using an experimental filler blended from a high alkaloid tobacco with low alkaloid and oriental tobaccos. This work was designed to provide a preliminary indication of the feasibility of the concept." Tafur and Lambert concluded that "[t]he data presented here indicate that the approach to delivering adequate nicotine to MS while reducing TSNA can be met by judicious blending of tobaccos." No Philip Morris product using this approach has been developed or brought to the market.

2249. Nicotine Removal. A primary reason for the magnitude of disease caused by smoking is that cigarettes contain nicotine, a drug that, when delivered in cigarette smoke, creates dependence in up to 92% of smokers. As addiction to nicotine causes smokers to regularly inhale the harmful smoke constituents from cigarettes, nicotine's harmfulness primarily lies in its role in ensuring the regularized and long-term inhalation of cigarette smoke. Philip Morris has long been aware of, and able to, manipulate nicotine to produce a potentially less hazardous cigarette.

2250. As discussed above, one approach could involve removing everything delivered by a cigarette but nicotine (and possibly other non-harmful flavor additives), so that smokers can obtain nicotine without receiving harmful smoke constituents. This approach to a potentially less hazardous product – exploiting the tobacco industry's knowledge of the central role nicotine plays in satisfying smoker's addiction – was documented no later than 1972 at Philip Morris and much earlier in BATCo's patents.

2251. A second, indirect approach could involve removing all or substantially all nicotine from the product to eliminate the possibility of dependence. A non-addictive product could potentially cause disease in fewer of the people who smoke it, because it would permit the smoker a choice about whether to smoke and inhale disease-causing smoke unconstrained by the need to regularly attain the brain effects and to avoid withdrawal from nicotine. A product lacking nicotine would also result in a low-TSNA product, because nicotine is the primary alkaloid in cigarettes responsible for TSNA formation.

2252. Philip Morris actually developed and sold a product utilizing the second approach – reducing the quantities of nicotine below the level possible to create and sustain addiction. However, Philip Morris conceived and pursued the project primarily from a marketing perspective -- as a "health reassurance" product to exploit consumers' perception that a no-nicotine cigarette was less hazardous because nicotine itself was harmful. Accordingly, Philip Morris did not communicate to smokers the significance of denicotinization – that it removed the drug responsible for smoking addiction. Such information would have impliedly acknowledged that all other cigarettes sold by Philip Morris and the other defendants were addictive, and could

have increased the possibility of product regulation, which Philip Morris, until 2000, opposed vehemently.

2253. Philip Morris twice has developed a nicotine free cigarette – one that it did not bring to market in the 1960s and another it marketed briefly in the late 1980s – demonstrating Philip Morris's ability both to manipulate and control the level of nicotine in its cigarettes, and thus to create a non-addicting cigarette.

2254. In March 1961, Wakeham reminded Philip Morris executive Hugh Cullman that:

we have available in Research and Development two processes for reducing nicotine in smoke:

- (1) The Rosenthal process, which is now patented, whereby nicotine is reacted with a gaseous compound such as ethyl bromide or chloride. By this method, nicotine in smoke can be reduced to one-half of the untreated value.
- (2) A Research and Development selective extraction method, patent applied for, whereby the nicotine in smoke can be reduced to only 10% of the untreated value.

We have not yet decided which of these two methods is preferable from the standpoint of product quality or economics. . . . We think the flavor of our denicotinized cigarettes is superior to Sano at equal nicotine levels. If we were to denicotinize something like the So-Lonita Parliament blend, we should be able to produce a low tar and extremely low nicotine cigarette.

2255. Philip Morris never marketed a cigarette that utilized these early denicotinization techniques.

2256. In the mid-1980s, Philip Morris revived the idea of a denicotinized product after marketing research indicated that consumers were potentially interested in a low-nicotine product because they perceived that such a product would be healthier. Market research repeatedly demonstrated that the central reason for smokers' interest in denicotinized cigarettes was that they

perceived them to be "healthier" – *not* because denicotinization removed the pharmacological dependence to cigarettes, and thus reduced the need to inhale harmful cigarette smoke in order to obtain sufficient nicotine – but because smokers believed nicotine itself to be a harmful substance. For example, one consumer research document reported that the main benefit consumers attributed to a denicotinized cigarette was "a general health benefit – people felt a cigarette with less nicotine would be generally healthier than one with more nicotine. Even if they didn't know exactly what nicotine and its effects were, people assumed it was bad for them."

2257. The product was thus conceived by marketing to exploit the "health reassurance" that consumers attributed to a nicotine-free cigarette. Philip Morris made no effort to explain the true potential health benefit of the denicotinized cigarette: by removing the addictive agent, smokers would be able to choose whether to regularly inhale disease-causing cigarette smoke into their lungs.

2258. Philip Morris's marketing research on the denicotinized product reflect its well-documented understanding, beginning in the early 1960s, of the central role of nicotine in keeping people smoking. For example, in an October 1988 document written by Carolyn Levy, a behavioral psychologist in Philip Morris's R&D and Marketing Departments, copied to William Campbell, later Philip Morris's CEO, Philip Morris gauged consumers' reactions to the themes "What you want out of a cigarette," and "Now you have a choice." Levy's report acknowledged the double meaning in both phrases that acknowledge the importance of nicotine and the addictiveness of conventional cigarettes, but also noted that few consumers saw the addiction-related meaning.

2259. Beginning in 1989, Philip Morris briefly sold denicotinized cigarettes in test markets under the Next (Nicotine Extraction), Merit De-Nic, and Benson & Hedges De-Nic brands, using a supercritical fluid extraction process (akin to the process for making decaffeinated coffee) to remove about 97% of the nicotine from the cigarette. The test-marketing was halted in the early 1990s. While Philip Morris claims the product was not consumer "acceptable" because smokers disliked the "taste" of the denicotinized cigarettes, Philip Morris did not adequately pursue cost effective flavor development programs that were capable of curing any alleged taste problem. Moreover, Philip Morris's marketing did not adequately inform consumers of the health benefits of smoking a denicotinized, and therefore non-addictive, cigarette. Indeed, Philip Morris knew that, in 1992, consumers rated a menthol version of a free-standing De-Nic brand equal to conventional menthol products.

2260. In short, the failure of denicotinized cigarettes as a potentially less hazardous product for its users resulted, in part, from decisions Philip Morris made that were unrelated to technological capabilities. First, Philip Morris conceived and positioned the denicotinized cigarette as a marketing gimmick to take advantage of consumer perception that a no-nicotine cigarette would be healthier, and chose for corporate policy reasons not to inform the consumer as to *why* it could potentially actually be less hazardous. Second, Philip Morris chose not to utilize flavor development, including menthol, that could have addressed any alleged consumer "taste" complaints, despite evidence that menthol versions of De-Nic were rated comparably to other low-delivery products on the market.

2261. Marketing Choices and Failure to Research. Like R.J. Reynolds, discussed below,

even when Philip Morris has brought some of its potential risk-reducing technology to market, it has not promoted the health benefits of these innovations as an incentive to consumers to try the products the company believes have the potential to reduce risk – raising questions about Philip Morris's motivation behind marketing these innovations at all.

2262. Saratoga. In the early 1960s, Philip Morris test marketed the Saratoga cigarette, which used a charcoal filter and which was, in their researchers' view, "superior to anything in the market place" from a health standpoint. Yet it failed because the company chose not to compete on health grounds:

Two years ago, in anticipation of a health crisis to be precipitated by the Smoking and Health Report of the Surgeon General's Committee, we undertook to develop a physiologically superior product. . . . That product was Saratoga. Physiologically it was an outstanding cigarette. Unfortunately then after much discussion we decided not to tell the physiological story which might have appealed to the health conscious segment of the market. The product as test marketed didn't have good 'taste' and consequently was unacceptable to the public ignorant of its physiological superiority.

2263. Cambridge. Philip Morris's manufacture of Cambridge cigarettes confirmed its ability to remove effectively all tar from cigarettes; however, its subsequent modifications to that brand demonstrated both its lack of commitment to that strategy as well as its exploitation of the Cambridge brand name for profits at the probable expense of Cambridge smokers' health. In 1979, Philip Morris manufactured a cigarette that measured less than 0.1 mg tar on the FTC test. Internally called Project Trinity, it was marketed initially in 1980 as the Cambridge brand and sold without a brand descriptor as 0.0 mg tar (<0.1mg) (FTC). In 1986, Philip Morris repositioned the Cambridge name, pulling the 0.1 mg tar (FTC) line from that name, and

introducing in its place Cambridge Lights, which had 12 mg tar (FTC), Cambridge Ultra Lights, which had 6 mg tar (FTC), and Cambridge Full Flavor Kings with 16.1 mg tar (FTC) in November 1988.

2264. Re-formulation of Cambridge was driven by Philip Morris's marketing and commercial objectives. A 1986 memo to Philip Morris's entire sales force announced the national introduction of Cambridge Lights at 12 mg tar (FTC) with the statement "The Cambridge name will give us an opportunity to build upon established familiarity and create a new image for Cambridge through advertising and promotional activities."

2265. Philip Morris's exploitation of Cambridge demonstrates both Philip Morris's ability to develop and market a product that delivered essentially no tar by the FTC method, and, as discussed further in Section IV.D, its misleading and deceptive use of brand descriptors.

2266. Accord. Most recently, Philip Morris has taken the approach of developing an allegedly "lower delivery" product apparently for the sole purpose of responding to its critics, but one so different in appearance and smoking procedure that it poses little threat as an alternative to the conventional cigarettes sold by Philip Morris or those of the other Cigarette Company Defendants.

2267. Accord is the first product that Philip Morris has sold anywhere – albeit only in limited test market since 1998 in its home town of Richmond, Virginia, and in Osaka, Japan – that was allegedly developed to actually deliver fewer of the known toxic substances in cigarette smoke.

2268. Accord is Philip Morris's electrically heated smoking "system." The purchaser

receives a kit – a starter set of shorter, specially designed cigarettes and a dark rectangular device approximately the size of a large candy bar. To smoke Accord, the smoker inserts a cigarette into the end of the heating device. When a smoker inhales on the inserted cigarette, the inhalation triggers the device's electrical heating element, which heats the cigarette at a temperature below that necessary to create combustion and delivers smoke to the smoker. The device permits a maximum of eight puffs per cigarette, and information about the activity and puff count is provided to the smoker on a small LED display on the device. The principle of the electrical heating element is that heating at a temperature below combustion prevents the formation – and thus the delivery – of many of the substances in cigarette smoke that are most harmful.

2269. Jane Lewis, a Philip Morris scientist and designated expert witness in the instant case, hailed Accord as part of the company's "reduced harm strategy," testifying in her deposition in this case: "[I]t's a significant product in our portfolio." The company expects Accord to reduce the risk of disease by significantly reducing the delivery of fifty-eight harmful constituents in cigarette smoke. Philip Morris scientists since the 1950s have recognized that the heat associated with burning tobacco promotes the delivery of many harmful constituents of cigarette smoke. Thus, Philip Morris developed the Accord cigarette on the theory that, by controlling the delivery of heat, many of the harmful constituents could be reduced.

2270. Philip Morris asserts that it has data to support its claims. In internal lab studies (the Accord technology dates back to the 1980s) and more recent Human Exposure Studies in Richmond, Virginia and Osaka, Japan, Philip Morris claims that Accord has substantially reduced the delivery of fifty-eight harmful constituents believed likely to contribute to causing

smoking-related diseases. For example, the company says the PaH level is below a measurable amount, the carbon monoxide delivery is extremely low, there is a 90% reduction in 1,3-butadiene production, and the TSNAs are below 50% compared to conventional cigarettes. Philip Morris claims its tests have shown that mutagenic activity in the Accord cigarette is lower than conventional cigarettes, and the Ames test on Accord found essentially no mutagenic activity. Moreover, the company claims that the design of the Accord product limits consumers' ability to compensate for reduction of nicotine and tar by taking stronger draws, because the Accord is designed to only deliver eight puffs of a limited amount of smoke.

2271. Yet despite touting Accord to the public health community as a substantial technological achievement, [REDACTED]

[REDACTED]

2272. Sales figures for Accord in its Richmond test market reflect poor performance thus far. [REDACTED]

[REDACTED]

2273. There is little evidence to suggest Philip Morris believes it has a realistic chance for commercial success with Accord – or is even trying to make that happen. Philip Morris has not made the necessary efforts to change smoker expectations and taken other steps to

make Accord a commercial success. As of 2001, Philip Morris's marketing material told potential consumers only that Accord "adds enjoyment to your smoking" with a "cleaner, less messy smoking experience." Philip Morris has marketed Accord as a cigarette for smokers who do not want their smoking to generate sidestream smoke and the odor that results from a burning cigarette.

[REDACTED]

[REDACTED]

2274.

[REDACTED]

[REDACTED]

2275. Not only has Philip Morris failed to promote Accord's best features, [REDACTED]

[REDACTED]

2276. In fact, Philip Morris is hard pressed to that it has even sought to determine

why Accord is not a commercial success. Moreover, its choice of Richmond, Virginia, as its test market site is unusual. Richmond is and long has been the site of Philip Morris's headquarters. Jane Lewis, the company's expert witness who testified extensively about Accord, stated, "We [Philip Morris] . . . never test market in Richmond," and admitted that, because "Richmond is favorable to Philip Morris[,] . . . it doesn't give us an average read of the average consumer." Indeed, Lewis refers to what is going on in Richmond as "sort of an expanded consumer panel . . . rather than a test market."

2277. Indeed, while Philip Morris claims to be continuing development of an improved Accord, and even to be preparing additional packings of Accord, Philip Morris appears to be shifting its scientific and marketing focus for its main "less hazardous" product to its SCoR ("Selective Constituent Reduction") product, which it claims to be preparing for imminent launch. The SCoR product is more conventional in appearance and is a "lit end" product like Philip Morris's brands of conventional cigarettes.

2278. To the extent that Philip Morris has sought to market Accord, in contradiction of Philip Morris's statements that it does not interfere with anyone who wants to quit smoking, evidence suggests that [REDACTED]

[REDACTED]

2279. [REDACTED]

[REDACTED]

[REDACTED]

2280. In addition to policing its own ranks to limit, control, and prevent the presentation of a safer product, Philip Morris also has played the role of enforcer of the Gentlemen's Agreement when other **companies** stray. For instance, Liggett President K.V. Dey said that Philip Morris pressured and threatened Liggett into not selling XA, its non-carcinogenic cigarette, in the United States.

2281. As recently as 2001, in response to Vector announcing its plans to market Omni, a reduced carcinogen cigarette, Vector claims that Philip Morris and BATCo lobbied Argentinian officials to prohibit cultivation of the genetically modified tobacco that Vector says is a key component of its risk reducing product. Roberto Sanchez Loria, Agriculture secretary of Tucuman, Argentina, confirms that these two companies warned him that his province "is in danger" of losing business from the big tobacco companies if it continues to plant transgenic tobacco.

2282. The trends outlined above continue today for Philip Morris. Kenneth Houghton, retired former Philip Morris Senior Vice President for Research and Development, Philip Morris employee from 1974 through 1996, and current consultant for Philip Morris, has significant knowledge of Philip Morris's development of less hazardous cigarettes since the mid-1980's. He stated that the only advances in Philip Morris cigarettes that implicate the health effects from smoking were: lowered tar delivery; the Accord product; the switch from non-filtered to filtered cigarettes; and reduced ignition propensity. None of these modifications and innovations have presented any proven meaningful reduction in the harm caused by Philip Morris's cigarettes.

2283. In sum, Philip Morris's current attitude toward less hazardous cigarettes is to create the impression that it is continuing to work on the problems that concern health conscious smokers, but doing nothing to jeopardize or meaningfully compete with conventional cigarettes.

(2) R.J. Reynolds

(a) R.J. Reynolds and the Gentlemen's Agreement

2284. R.J. Reynolds is and has been a loyal adherent to the principles of the Gentleman's Agreement and the company's support for the joint approach has been recognized by others. For instance, Philip Morris chief scientist Helmut Wakeham, in response to the 1964 Surgeon General's report, identified a "common front approach" taken by the industry through TI and TIRC, and noted that R.J. Reynolds "advocates a joint front, sit tight, status quo approach" to the question of making safer cigarettes.

2285. R.J. Reynolds's allegiance to the Gentlemen's Agreement manifested in its unwillingness to cooperate with a government-initiated attempt to develop a less hazardous cigarette in collaboration with the industry. In early 1972, while publicly agreeing to participate in the National Cancer Institute Tobacco Working Group ("TWG"), industry lawyer Ed Jacobs instructed R.J. Reynolds scientists Murray Senkus and Alan Rodgman, as well as other industry members, to block the TWG from performing the dog inhalation studies deemed necessary to develop new products on the grounds that these studies would be an admission by the industry that existing cigarette products were harmful and might show proof of nicotine habituation.

2286. Internally, despite what it holds out to the public, discussed below, R.J. Reynolds has admitted that neither the company nor any other Defendant has done all it can to develop and

market a safer cigarette. In an internal defense memo prepared in approximately 1985, R.J. Reynolds (through its counsel) concluded that a non-carcinogenic cigarette could be made, noting with regard to Liggett's XA product: "Liggett abandoned it, but only after it had come to a successful conclusion." R.J. Reynolds further admitted that it has made no effort to emulate that product or otherwise to make a non-carcinogenic cigarette. Indeed, while noting that Liggett "used its patent to deprive others of its invention," R.J. Reynolds has not done anything to explore the idea since the expiration of the patent. And it further confessed: "[XA] suggests that 'safer cigarette' technology has been available and in the tobacco industry's patented possession for the last 30 years . . . and still, no safer cigarette."

2287. The evidence shows that, while R.J. Reynolds presents itself outwardly as a company devoted to the development of a safer cigarette, it has made no real effort to fulfill that goal. R.J. Reynolds has offered and is offering products as "safer" or "potentially safer," when the company does not truly know whether they are or are not safer. And one result of such behavior, whether intentional or not, may be to encourage would-be quitters to continue smoking and overcome the reluctance of some non-smokers to start.

2288. While R.J. Reynolds states that it is committed to reducing risk and that it has explored every reasonable hypothesis toward the development of a safer cigarette, it commits relatively modest resources to the task. For instance, in the second quarter of 2002 – a mere three month period – the company posted profits in the range of \$211 million, yet its annual Research and Development budget for all of 2002 is just [REDACTED] of which it spends less than half on safer cigarette work. Of the approximately 430 employees currently in the department, only

[REDACTED] devoted to safer cigarette work full-time.

2289. Despite being an original signatory of documents like the "Frank Statement" and the like, the evidence adduced and discovered demonstrates that R.J. Reynolds has not actively sought to determine the links to and risks of disease that cigarette smoking posed to smokers of its cigarettes.

2290. Contrary to its representations, R.J. Reynolds does not seek to protect the health of its smokers. On the one hand, CEO Andrew Schindler maintains that it is one of his top priorities to keep smokers informed about the risks of smoking, making statements such as, "I think if you are making a product that has those risks [of lung cancer, emphysema, and heart disease], that first in your list of sort of responsibilities [is] that people understand that are using the product, those risks exist." On the other hand, Schindler testified that R.J. Reynolds has no further commitment to identifying any new risks to smokers from smoking, maintaining that "[I]t's inconceivable to me that someone in our society would not be fully aware of the risk of smoking."

2291. While at the same time that Schindler and his scientist subordinates complain that they are limited in finding a way to make a safer cigarette because no one has discovered the precise mechanisms that causes lung cancer in smokers, R.J. Reynolds does not believe that it is its job to make further progress in identifying these links.

2292. Schindler further testified: "Well, it's on the warning label -- . . . public health officials and warning labels and all are directed that way. . . . I can't quite figure out why I would have a responsibility to do medical research, and, besides, nobody would believe it anyway."

2293. Further, nicotine expert and former R.J. Reynolds Product Evaluation Vice President Donald deBethizy testified that, as of the time of his leaving the company in 2000, R.J. Reynolds had never looked at research questions such as the following:

- whether nicotine affects children differently than adults, or otherwise as a function of age, even though it is generally known that chemicals can be metabolized differently depending on your age (metabolizing is what happens after something is absorbed.);
- whether there are age related affects of nicotine on the brain such as the time it takes for nicotine to move from where it's absorbed to the brain; or
- whether addiction to nicotine as newly defined, or susceptibility to addictiveness, varies as a function of age.

(b) Scope of R.J. Reynolds's Program

2294. In seeking to reduce risk – or give the appearance thereof – R.J. Reynolds purports to have pursued two general approaches: (a) reduction of harmful constituents contained in conventional cigarettes or produced by the burning of a cigarette, using either "selective reduction" and/or "general reduction" methods; and (b) developing and introducing new types of cigarettes, which differ from conventional cigarettes in that they do not contain or produce the harmful constituents in the first place.

2295. "Selective" and "General" Reduction Approaches. R.J. Reynolds's proclaimed achievements in the area of selective and general reduction have been limited in nature and effect, notwithstanding R.J. Reynolds's representations o the contrary. As R.J. Reynolds uses the term, "selective reduction techniques" are means to reduce a particular substance that is part of a cigarette or is created in the process of burning a cigarette ("pyrolysis") that is identified as

threatening to the health of the smoker. This method differs from the other approach R.J.

Reynolds has claimed to have taken to create safer conventional cigarettes – "general reduction" – which is composed of techniques to simplify or reduce all of the constituents of cigarette smoke and "tar" at once through a single process or set of processes.

2296. R.J. Reynolds has publically stated that one of the problems with pursuing a selective reduction approach has been that public health community members who have taken identified the constituents that pose potential health risks have shifted over time from one problem constituent to another, forcing R.J. Reynolds to similarly shift focus. As examples, R.J. Reynolds has pointed to the external scientific community's supposed shifts in focus over time from phenols to benzo(a)pyrene, and then from benzo(a)pyrene to ciliastats (discussed below).

2297. R.J. Reynolds's public position is belied by its refusal to act proactively and to participate in the search to identify potentially threatening compounds or constituents. R.J. Reynolds was not an original party investigating phenols, benzo(a)pyrene, or ciliastats as potential disease-causing or threat-posing constituents. Indeed, the only occasions where R.J. Reynolds funded outside research to investigate potential links between smoking and disease were through its contributions to CTR. R.J. Reynolds's designated expert witness on safer cigarettes could not identify a single occasion where R.J. Reynolds or a R.J. Reynolds funded entity was the first to identify a potential link between smoking and disease. Nor could the witness identify any occasion that CTR was the first to identify such compound or constituent. R.J. Reynolds claims it is not the best equipped to conduct such research, and equivocates as to whether it is the best equipped to fund it, even though R.J. Reynolds posted a \$211 million profit

in the quarter ending June 30, 2002.

2298. While R.J. Reynolds claims it has pursued selective reduction techniques for decades, the company's representations that it has committed itself to and accomplished gains in the direction of creating a safer cigarette through selective reduction techniques are misleading. R.J. Reynolds cannot provide any information – nor until recently has it even endeavored to find out – whether the levels to which it says it has reduced these constituents has decreased its customers' corresponding level of risk at all, or has brought their level of exposure to the known harmful substances within biologically safe limits such that their risk of adverse health consequences is reduced.

2299. For instance, benzo(a)pyrene, or BAP, is a class II carcinogen, believed to cause cancer in animals. It is a type of polycyclic aromatic hydrocarbon, or PAH. BAP is considered a "signal" PAH – i.e., a marker for the presence of the entire category of known PAHs – of which five are known to be carcinogenic. R.J. Reynolds asserts that BAP is present in cigarette smoke in such low levels that it cannot account for tumorous results in mouse skin painting studies. R.J. Reynolds claims not to be aware of published studies showing BAP smoke causing cancer in the larynx of hamsters, and it denies that BAP in environmental tobacco smoke causes cancer in rats.

2300. R.J. Reynolds's safer cigarette scientists admit that they have not and thus far cannot identify a biologically safe level of BAP – i.e., the company cannot say what amount of BAP a person can be exposed to over a period of time equivalent to the smoking lifetime of the average smoker without increasing his risk of cancer. Nor is R.J. Reynolds aware of the amount of cumulative retention there is of BAP to determine whether, and to what extent, smokers are

exposed to a higher risk the longer they smoke.

2301. R.J. Reynolds's statements that it has "effected a major reduction in the total yield" of BAP (and, correspondingly, carcinogenic PAHs) as a representation of its efforts to create a safer cigarette are false, because it does not know the amount that BAP levels must be reduced to ensure that its customers' exposure to health risks is reduced or eliminated.

2302. The same is true for virtually all of R.J. Reynolds's supposed selective reduction "accomplishments." For instance, R.J. Reynolds has stated that, in 1954, once the scientific community identified phenols, which are thought to be tumor promoters, as possible contributors to the risks of smoking, R.J. Reynolds introduced a cellulose acetate fiber filter, treated with triacetin plasticizer, as method of selectively removing some of the more volatile phenols. The company claims that it has accomplished a "major reduction" by doing so, even though it admits that it has not eliminated more than 30-35% of them. Nor can R.J. Reynolds say whether this 30-35% reduction has brought the phenol exposure level to a point that the remaining 65-70% exposure poses no risk of the adverse effects of phenols. Nor can R.J. Reynolds say whether reducing phenols by 30-35% is enough to trigger any actual reduction in the possible occurrence of phenol-related diseases.

2303. R.J. Reynolds's "general reduction" cigarettes, Premier and Eclipse, remove a greater percentage of phenols, but R.J. Reynolds pulled Premier off the market in less than one year, and has kept Eclipse in a limited test market distribution for six years.

2304. The same is true for R.J. Reynolds's selective reduction efforts to reduce ciliastats produced by smoking. R.J. Reynolds does not know what level of reduction of these constituents

is necessary to bring a human's exposure to ciliastates within biologically safe limits.

2305. Touting its purported accomplishments, R.J. Reynolds's appointed expert on safer cigarettes topic stated:

Reynolds' extraordinary achievements in cigarette design include the reduction of specific carcinogens and other suspect compounds ("selective reduction"), the overall reduction of mainstream smoke yields ("general reduction"), and the dramatic simplification of the composition of smoke with advanced technology products.

2306. General reduction theory, when applied to conventional cigarettes, is premised on the belief that tar carries many if not all of the threatening by-products of cigarette smoke. Rather than trying to selectively reduce or remove each of these different by-products one at a time, general reduction theory assumes that, if tar can be reduced in its entirety, the level of all of these by-products will decrease simultaneously. If it is impossible to change the nature of tar (as R.J. Reynolds claims it has tried to do with Eclipse and Premier), the company's general reduction goal for conventional cigarettes is to reduce tar as greatly as possible.

2307. A closer look at R.J. Reynolds's purported "achievements" in the general reduction, however, reveals that the company does not know whether any of these reductions are at all meaningful. As with selective reduction, R.J. Reynolds has not determined whether the reductions they purportedly achieve (setting aside issues of compensation) actually bring the smoker's exposure to harmful compounds within biologically safe levels.

2308. One constituent of R.J. Reynolds's cigarette is bea-napthalene, a human carcinogen, understood to be related to bladder cancer. Though R.J. Reynolds claims to have reduced beta-napthalene by its general reduction methods, it cannot quantify the amount of that

reduction except to say that it believes beta-naphthalene is reduced at the same rate as tar is reduced. More importantly, R.J. Reynolds does not know the biologically safe threshold level for exposure to beta-naphthalene, i.e., how much a person can be exposed to, either at once or over time, without increasing the risk of the carcinogenic harm it poses. Nor does R.J. Reynolds even know whether reducing beta-naphthalene to a particular level will cause reduction in risk.

Therefore, R.J. Reynolds cannot know whether the reductions in beta-naphthalene it claims to have achieved lowers in any way the health risk smokers of R.J. Reynolds's cigarettes face.

2309. R.J. Reynolds claims to have attempted both selective and general reduction methods to lower the carbon monoxide ("CO") content of the smoke of its products. CO, which is contained in the gas phase of cigarette smoke, is associated with cardiovascular disease and reduces the oxygen-carrying capability of the bloodstream. Long term CO exposure also has been linked to an increased risk for the development of asthma and of frontal lobe (brain) pathology.

2310. Beyond the required Surgeon General warnings, R.J. Reynolds has not warned its consumers of risks associated with CO. Before the Surgeon General's was imposed, R.J. Reynolds made no warnings whatsoever.

2311. R.J. Reynolds has not been successful in reducing CO by selective reduction methods, but it claims that it has achieved "substantial" reductions by general reduction methods. This reduction is based on tar and nicotine yields produced by the FTC Method, which is discussed in detail in Section IV.D., and is not an accurate estimate of what smokers actually inhale. Moreover, R.J. Reynolds's claim of "substantial" CO reduction is measured against no

objective standard, but instead it is based on R.J. Reynolds's assumption that, since tar has been reduced by 60%, CO has been reduced by the same amount. R.J. Reynolds admits that "substantial" does not refer to the biological implications of the magnitude of reduction.

2312. R.J. Reynolds does not know whether, by general reduction or otherwise, it has reduced exposure for smokers to within biologically safe or safer levels for any of the following carcinogens that are byproducts of its cigarettes:

- arsenic (known human carcinogen)
- benzene (known human carcinogen)
- vinyl chloride (known human carcinogen)
- ethylene oxide (known human carcinogen)
- cadmium (known human carcinogen)
- 4-aminobiphenyl (known human carcinogen)
- acetaldehyde (probable human carcinogen).

2313. R.J. Reynolds does not know if the amounts it claims to have reduced these substances have any risk-reducing impact at all. R.J. Reynolds does not know if a "dose-response relationship" is achieved whether, for every "x" percent reduction in exposure to the compound, there is a corresponding, measurable drop in the risk of the disease. Therefore, having not reduced the amounts of any of these compounds to zero, R.J. Reynolds does not know whether these reductions (even if true and actually achieved by individual smokers) in fact create a less hazardous product.

2314. R.J. Reynolds has in at least one instance conceded that the failure to know

exposure thresholds renders all of their implied and express assertions about specific and general reductions lowering the risks of smoking meaningless. In particular, years after its public statements regarding its supposed achievements in specific and general reduction, R.J. Reynolds states that it is now trying to determine the dose relationships (if any) and biological exposure thresholds. There have been no advancements in the last five years that previously prevented R.J. Reynolds from doing so. Moreover, R.J. Reynolds has not employed an epidemiologist to participate in this risk assessment undertaking.

2315. New or "Unconventional" Cigarette Technology. R.J. Reynolds admits limited success in selective reduction efforts to date, and believes that there are no additional gains to be made in the general reduction of conventional cigarettes (due to the stability of the sales weighted average tar intake level over the last twenty years). R.J. Reynolds claims to have explored creating a different kind of cigarette – one that intercepts problems at an earlier stage of the process, or prevents them from arising at all – as another avenue to reducing risk for smokers.

2316. R.J. Reynolds has introduced a number of supposedly safer cigarette products into the market, which it claims have achieved some level of technical success and constituent reduction, but which have failed to achieve consumer acceptance. Those products are charcoal and carbon-filtered cigarettes, as well as Premier and Eclipse. By "technical success," R.J. Reynolds means the potential to reduce risk. By "consumer acceptance," R.J. Reynolds means a sustained interest by smokers in buying those products beyond the trial marketing period, as measured by a market share of at least three-tenths of one percent of the United States cigarette sales.

2317. Charcoal/Carbon Filter Technology. R.J. Reynolds has stated that charcoal and carbon filters failed when introduced in the 1960s because, while the carbon removed a lot of the vapor phase compounds from the smoke, it significantly changed the taste, making the cigarettes unpalatable to consumers. Among the compounds these filters reduced were carbonyls (which can cause tumor formation), hydrogen cyanide (which may be related to cardiovascular disease), and benzene (which is believed to be a carcinogen). R.J. Reynolds's sole carbon filter product during that time was Tempo, which sold from the early 1960s to the early-to-mid 1970s. Despite its technical merit, R.J. Reynolds has stated that it pulled this product from the market, because, during its peak years, Tempo achieved no more than a .2 or .3 percent share – selling at most a mere 120 million to 180 million Tempo cigarettes per year for R.J. Reynolds.

2318. During the period that R.J. Reynolds was selling Tempo, it did not state publically that there was a need for a reduced risk cigarette nor did it state that Tempo was a possible response to that need. The company did not encourage consumers to trade off on or adjust for taste differences in order to lower the risks to their health caused by smoking. Indeed, the only way the public had to learn about the potential health benefits of carbon filters were articles in the popular press and scientific journals.

2319. Innovative Products Technology R.J. Reynolds Does Not Market. Despite its public statements to the contrary, evidence establishes that R.J. Reynolds has developed but failed to meaningfully market other products that, by its own standards, were both safer and consumer acceptable. For example, R.J. Reynolds has for over seven years declined to market what it believes to be a commercially acceptable safer cigarette product. In 1994, R.J. Reynolds

test marketed a product that it believes had substantial risk reductions and was, by its own measure, commercially acceptable, yet R.J. Reynolds nonetheless discontinued distribution of this product after [REDACTED] and has not marketed it since.

2320. In the 1960s, the external scientific community identified a group of compounds in smoke called ciliastats, which included the class of compounds called aldehydes and gas phase compounds such as nitric oxide. Cilia are hair-like substances along the lining of the lungs that, under normal conditions, move about to clear harmful substances from the lungs. Ciliastats are deemed threatening because these substances are believed to have a paralyzing effect on the cilia – reducing their ultimate number and slowing the movement of that remain. Recent theories also suggest that ciliastats, such as acetaldehyde and acrolein, are irritants, and may therefore be precursors to tumor formation.

2321. R.J. Reynolds's selective reduction technique of using certain filter additives such as carbon removed some of these ciliastats. It marketed its carbon filter in Tempo for over ten years, beginning in the 1960s. Despite its effectiveness (estimated at a 50% reduction compared to traditional cigarettes), R.J. Reynolds has not added such a carbon filter to any of its cigarettes since Tempo.

2322. R.J. Reynolds has not succeeded in reducing ciliastats with any other selective reduction technique. Rather, R.J. Reynolds has identified general reduction techniques such as ventilation as an additional method of reducing ciliastats in the course of lowering tar levels. These methods are not as effective as the carbon filter, but, taken together, the general and selective methods combined can compliment each other, thereby effecting an increased reduction

in ciliastats. R.J. Reynolds does not currently market any product which uses this combined powerful effect, although it once brought such a product to test market.

2323. In 1994-95, R.J. Reynolds developed and sold a product that incorporated both general and selective methods to reduce ciliastasis. [REDACTED]

[REDACTED]

2324. R.J. Reynolds offers two explanations for its decision to pull EW/Select, neither of which are consistent with its purported commitment to making safer cigarettes available to its customers: [REDACTED]

[REDACTED]

[REDACTED] Reynolds had a potentially safer cigarette that already [REDACTED] without health claims, but R.J. Reynolds chose to remove this product, subjugating the health interests of its consumers to the marketing interests of the company. Indeed, R.J. Reynolds decided that being able to use [REDACTED] [REDACTED] which conveyed a false sense of implied safety due to marketing

implied Winston contained no unsafe additives, took precedence over giving its customers access to what R.J. Reynolds believed was a risk-reducing product.

2325. Moreover, contrary to the testimony of R.J. Reynolds's expert on this topic, the EW/Select product was more than sufficiently successful by R.J. Reynolds's own measures to bring it to full market. Specifically, R.J. Reynolds's announced standard for commercial success adequate to continue sales of one of its safe cigarette products is that a product must achieve a market share of at least .03 or .04%. [REDACTED]

[REDACTED]

[REDACTED]

This is more than triple or quadruple the baseline " consumer acceptability standard R.J. Reynolds itself set forth.

Nor is R.J. Reynolds's assertion that EW/Winston Select "was doing no better than its counterpart conventional Winston Select" accurate. In fact, R.J. Reynolds found that EW/Select maintained a "+.33%" market share advantage over regular (non-EW) Winston Select sold in the control market chosen for comparison. Thus EW/Select sold at a 1/3 greater rate than its conventional counterpart – far from "doing no better," as the company stated.

2327. Nor has R.J. Reynolds conducted the additional tests it claims were needed to bolster the product's chance for commercial success even those these tests were the purported grounds on which R.J. Reynolds justified its removal from the market. [REDACTED]

[REDACTED]

[REDACTED]

2328. [REDACTED]

[REDACTED]

2329. Deproteinized Tobacco In the early 1990s, R. J. Reynolds suspended development of a potentially significantly risk reducing tobacco. Protein peptides – peptides that are joined together – are found in tobacco. Building on external research done in 1977, R.J. Reynolds has known since the early 1990s that removing protein peptides from tobacco – using "deproteinized" tobacco – will reduce mutagenic activity in cigarette smoke by 50% to 80%, as burning protein is responsible for a substantial amount of mutagenic activity. Mutagenic activity is an indicator of the presence of a health threat because the level of mutagenicity indicates the level of cellular dysfunction – a widely accepted proxy for disease.

[REDACTED]

[REDACTED]

[REDACTED]

2330.

[REDACTED]

[REDACTED]

2331.

[REDACTED]

[REDACTED]

(c) Tobacco Heating Technology: Premier and Eclipse

2332. In the area of tobacco heating, R.J. Reynolds offered Premier in test markets briefly in the 1980s and has had Eclipse in test market since 1996; R.J. Reynolds purports to have spent over one billion dollars on these products. R.J. Reynolds's claims that neither Premier nor Eclipse has gone any further than test market because there never has been sufficient level of

consumer acceptability. However, the evidence indicates that this was of R.J. Reynolds's own doing. Rather than trying everything it can or should do to make them succeed, the evidence demonstrates that R.J. Reynolds sees these cigarettes merely as place holders. It is not necessary to R.J. Reynolds that these cigarette products actually have the potential to reduce risk; rather, it is more important that they: (a) serve to mollify public demand for a safer cigarette, giving the smoker an excuse to hang on rather than quit; and (b) give smokers something they believe is safer, even when the company knows it is not safer or has not made the effort to know whether it is safer.

2333. Given that the requirements stated above are those R.J. Reynolds seeks to meet, the company has a disincentive to aggressively inform the public that its product is safer – or that it is safer than those sold by the other Cigarette Company Defendants – even if that is the case. Such method of competition would not only invite scrutiny by the United States through FTC and FDA regulation and endanger Defendants' litigation position in conventional cigarette cases; it would invite the wrath and attention of the rest of the other Cigarette Company Defendants, who would expend substantial energies to show that the claims are not true.

2334. Premier. R.J. Reynolds never gave its first tobacco-heated product, Premier, a chance to succeed, as it never marketed Premier as a "safer cigarette."

2335. R.J. Reynolds was aware that, as early as 1957, researchers in the greater scientific community had recommended that reducing the burning temperature of cigarettes could minimize the formation of harmful constituents such as polycyclic aromatic hydrocarbons.

2336. R.J. Reynolds's pursuit of that theory resulted in its tobacco heating technology.

Its first product utilizing that technology was Premier. Premier was test marketed in three cities, Tuscon, Arizona, Phoenix, Arizona, and St. Louis, Missouri, and for less than six months (from October 1988 to February 1989).

2337. R.J. Reynolds's internal goals for Premier were to reduce harmful chemicals and lower toxicity, and internally it believed that Premier achieved these goals. Internally, R.J. Reynolds had determined that Premier was extremely low in tar, was virtually smoke free, and had reduced many known-to-be-harmful constituents. Indeed, as to some harmful constituents of cigarette smoke, R.J. Reynolds believed that the reductions achieved in Premier were greater than those achieved in its successor, Eclipse. Further, R.J. Reynolds documented its belief that Project Spa (the working name for Premier) was "a product that is not mutagenic, produces no 'adverse biological activity,' and delivers full smoking satisfaction without burning tobacco," and "there are no constituents produced as a consequence of the incomplete combustion of tobacco [such as in Premier and Eclipse] that are alleged in traditional cigarette products to cause diseases or contribute to disease causation in humans." (Emphasis added).

2338. Despite these potential risk-reducing benefits, R.J. Reynolds has not performed the research necessary to determine whether Premier – or any of its products – are actually less hazardous than any other cigarette. Accordingly, R.J. Reynolds informed consumers only that Premier reduced what it merely considered "irritants" associated with smoking – environmental tobacco smoke ("ETS"), odor, and cigarette ash.

2339. R.J. Reynolds failed – and failed to make the effort – to change consumer expectations about Premier sufficient for it to succeed. Toxicologist and former R.J. Reynolds

Vice President for Product Evaluation J. Donald DeBethizy takes the position that Premier failed because "consumers didn't like it . . . the taste was dramatically different and people were unprepared for it." Yet the company was unwilling to take the steps necessary to overcome this impediment by improving Premier's taste.

2340. Premier was in test market for less than one year, even though R.J. Reynolds acknowledges that taste acceptability can take much longer to develop, and cigarettes that are very different from what smokers currently are used to are frequently found objectionable at first though smokers can adjust their taste preferences. This was the situation with Japanese smokers – who, over the course of a twenty-five year period, eventually switched over almost completely from regular filters to the very different tasting charcoal filters; it was the case with American smokers who eventually almost entirely switched over from the different tasting non-filter cigarettes to filter cigarettes; and it was even the case with what is now R.J. Reynolds's most popular brand, Camel – for which smokers also took some time to develop a taste.

2341. Premier was asking smokers to make an even bigger change, both in taste and in the general functioning of the cigarette, than did these other products, yet R.J. Reynolds gave it less than twelve months to catch on. R.J. Reynolds also failed to give smokers a reason for Premier to catch on. DeBethizy himself admits that R.J. Reynolds did absolutely nothing to "prepare" the consumers' expectations by telling them the best possible reasons why they should consider trading off on taste in exchange for another valuable benefit – risk reduction. R.J. Reynolds neither told the public that Premier potentially posed lower risks, nor – even though it purported to seek only people already smoking, rather than new smokers – did R.J. Reynolds

give it a reason to believe that smoking a less hazardous cigarette was important. For instance, at the time it marketed Premier, R.J. Reynolds was still refusing to admit that conventional cigarettes posed a health threat, such that there might be a compelling reason to switch. R.J. Reynolds did not admit publicly that smoking traditional cigarettes was a cause of cancer at the time it was selling Premier, notwithstanding that at the time it was selling Premier, R.J. Reynolds believed the epidemiological evidence was so strong that the company itself assumed that smoking traditional cigarettes caused lung cancer.

2342. Even if the public by itself already had realized that traditional cigarettes were risky, despite repeated and widely disseminated statement by the Cigarette Company Defendants to the contrary, R.J. Reynolds never told the public that Premier was worth trying for the purpose of reducing health risks. Internally, the company had data showing it believed that Premier produced substantially fewer and lower levels of harmful constituents than traditional cigarettes, and believed that Premier presented potential health-risk reducing benefits. But it did not make that information or conclusion available to the public in any accessible way. Rather, the only places the results were put out in public were in forums like the Premier Monograph, which R.J. Reynolds admits the lay smoker could neither obtain nor understand its contents. Rather, R.J. Reynolds gave the Premier Monograph to government officials and the public health community, expecting them to trumpet Premier's virtues. And when these bodies chose not to do so, R.J. Reynolds called them a demonizing influence, blaming Premier's failure on them.

2343. The "Gentlemen's Agreement" represent the real reason R.J. Reynolds failed to market Premier on risk reduction grounds – they chose not to do so because it would imply

conventional cigarettes posed a health threat. As R.J. Reynolds CEO at the time Gerald Long explained:

[O]ne of the guidelines that we had right from the beginning [of putting together the marketing strategy was] that Premier could not be and would not be marketed as a safer cigarette because of the implications on the tremendous business that we had at hand already.

...

[I]f we had come out and stated here you have Premier, the safer cigarette or the safest cigarette or anything indicating to that, the implication would have come back on our own products and our competitive products in the industry which we were aware of that that would have stated that they were not safe products, and since our position was that we were marketing, the industry and - ourselves and the industry were selling and marketing safe cigarettes, then we couldn't say in one of our brands that we were coming out with something that was safe, while all the rest was not safe.

...

The negative implications, I think, are quite obvious, that if we came out very strongly with a product, presuming that the product could deliver and it was the product that was in our opinion and the research showed it to be some kind of a - some kind of a product that was considered to be safer than any of the conventional cigarettes on the marketplace, it would have had a substantially negative effect on the rest of the tobacco industry, and we felt we weren't ready to take on that obligation. . . . What kind of negative effects? It would have turned around and said to people, well, the tobacco companies are publicly admitting we do not market safe cigarettes.

2344. Because of those "negative implications" and despite discussions about whether to market Premier as a safer cigarette, no one at R.J. Reynolds advocated such a strategy: "[W]e knew right from the outset in the development that was not our objective and we couldn't do it."

2345. Premier failed for that very reason. Former CEO Long continues: "So what we were trying to do when - while it [Premier] was under my management, believing here that we

probably went through four, five, six different advertising campaign approaches, tested them secretly with the consumer trying to relate what we were trying to do, and to my knowledge and memory, all of those approaches didn't - they failed because we couldn't say what we wanted to say" – that Premier was a safer cigarette.

2346. R.J. Reynolds was not the only company to realize this. Philip Morris hired consultants to evaluate R.J. Reynolds's advertising of Premier and found it "ineffective in communicating a relative advantage over the smoker's current brand [because it failed to show smokers] that this 'smokeless' cigarette offered them any personal 'health benefits'. This seemed to be a disappointment to these smokers." (Emphasis added).

2347. Rather than accept the blame for this no-compete-on-health approach, R.J. Reynolds's self-appointed expert on reduced risk products, David Townsend, stated in his expert report that Premier was not accepted by consumers in part because of the "wave of adverse publicity stimulated by the extreme reactions" of the federal and state governments and the public health community – extending to a point of "many government officials demoniz[ing] Premier."

2348. R.J. Reynolds's accusations to this effect quickly break down under closer scrutiny. Specifically, the "demonization" by the federal government apparently came from the fact that others petitioned the Food and Drug Administration to assert jurisdiction over Premier, and the FDA took the demonic steps of "considering those petitions very seriously" – so much so that R.J. Reynolds believed that, had it kept the product on the market, FDA would have asserted jurisdiction over it. More of this government "demonization" in the eyes of R.J. Reynolds apparently came from the free press, which raised public awareness of the truthful, accurate fact

that Premier produced carbon monoxide – exposure to which has been linked to cardiovascular disease, asthma, and other adverse health effects. Finally, in the eyes of R.J. Reynolds's safe cigarette expert, demonization also came from testimony of the Surgeon General, who Townsend believes said that Premier was more dangerous than conventional cigarettes and a threat to his no-smoking agenda. In other words, even though R.J. Reynolds itself insists that Premier (like Eclipse) was not for people who wanted to quit smoking, the federal government's opposition to its use by people who wanted to quit smoking rose to the level of demonization. These three actions are the sum of what R.J. Reynolds falsely characterizes as the governmental opposition campaign that succeeded in convincing consumers not to smoke Premier.

2349. Not only is R.J. Reynolds's contention that the public health community caused the failure of Premier unfounded, but any adverse reaction to Premier by the public health community was a result of R.J. Reynolds's own doing. Donald deBethizy, a senior scientist at R.J. Reynolds, explained why the public health community may have reacted negatively to Premier. As with consumers, R.J. Reynolds did nothing to prepare the public health community for the introduction of Premier: "Premier caught them off guard."

2350. Similarly, R.J. Reynolds Director of Toxicology Gary Burger testified that FDA Commissioner Young gave R.J. Reynolds positive feedback relating to the release of Premier, but blamed R.J. Reynolds for not providing him with enough supporting information with which he could respond to "anti-smoking activists." Indeed, R.J. Reynolds's failure with regard to how it handled the government and public health community in the context of Premier's release was so clearly R.J. Reynolds's own fault that in the mid-1990s, when Eclipse was released, Burger,

who by then had become R.J. Reynolds Vice President for all of R&D, said that he used "the lessons [he] learned from Premier" to have more prospective contact with agencies like the FDA, FTC, and CDC.

2351. Finally, even though R.J. Reynolds spent over \$800 million to develop Premier and bring it to test market, not only did R.J. Reynolds fail to position Premier to compete as an alternative to conventional cigarettes, it also failed to position Premier as a conventional cigarette. Unlike REDACTED which R.J. Reynolds advertised with the same devices as conventional brands, Premier was not advertised utilizing R.J. Reynolds's usual marketing vehicles such as: billboards with photos of attractive young women or young adults enjoying a social situation; discount coupons; sample giveaways in bars or nightclubs; promotional items like camping equipment or polo shirts; tie-ins to social or sporting events; and point of sale promotions.

2352. Eclipse. Eclipse is the second generation of R.J. Reynolds's "efforts" to produce a safer cigarette through tobacco-heating technology. R.J. Reynolds has had Eclipse in test market status in a few cities since 1996. Initially, R.J. Reynolds marketed Eclipse in the same way it had marketed Premier: as a "low ETS" cigarette. In April 2000, however, R.J. Reynolds announced that it was beginning a new test market of the Eclipse cigarette with the claims that it may present less risk of certain smoking related illnesses "compared to other cigarettes." Specifically, it claimed that Eclipse may pose less risk for lung cancer, chronic bronchitis and emphysema.

2353. While R.J. Reynolds did make some changes to Eclipse by 2000 compared to the initial release in 1996, none of the changes had to do with reducing health risks. Nor was the

change to a health-oriented claim precipitated by any substantial scientific advancement or breakthrough. When Eclipse was first released in 1996, R.J. Reynolds believed it was a reduced risk cigarette. All but one of the types of studies conducted on Eclipse were performed prior to 1996. The results of the remaining one, "BAL studies", which examined the lung tissue and measured degree of irritation, was deemed central to the decision to assert a reduced risk claim. Yet, "technically, those [BAL] studies could have been done before 1996" – i.e., nothing prevented R.J. Reynolds from conducting them before Eclipse was originally released.

2354. Despite making explicit, albeit tentative, health claims about Eclipse, R.J. Reynolds still refuses to compete in any meaningful way with the other Cigarette Company Defendants on health grounds.

2355. First, R.J. Reynolds will not even expressly state a rationale for smokers to choose Eclipse – as it will not admit that smoking conventional cigarettes causes cancer such that it can give the public a concrete reason for trying the radically different product that is Eclipse – i.e., because R.J. Reynolds believes that it poses less risk than the other products it and the other Cigarette Company Defendants sell. Again, such statements would be an admission that the conventional products that the Cigarette Company Defendants sell cause harm.

2356. R.J. Reynolds also avoids presenting the argument to the consumer that Eclipse potentially presents less risk than other Cigarette Company Defendants' conventional cigarettes. Donald deBethizy, R.J. Reynolds Vice President for Product Evaluation, testified that all of its published chemical tests of carcinogenic constituents consisted of comparisons between Eclipse and a laboratory-generated, composite, generic "reference" cigarette – rather than actual

commercial brands sold by R.J. Reynolds or other companies. R.J. Reynolds's rationalization for this choice is that tests against a reference cigarette could be replicated by others over time.

2357. This explanation is undermined by R.J. Reynolds's conduct on other occasions when it needed to make comparisons of potential risk reduction. For instance, in January 2002, when R.J. Reynolds sought to prevent Vector Tobacco Ltd. (100% owner of Liggett) from marketing a safer cigarette, R.J. Reynolds chose to compare the competing product to actual commercial brands. R.J. Reynolds Chief Counsel Charles Blixt accused Vector Tobacco Ltd. of making false claims about its reduced risk product, Omni, threatening to report Vector to "appropriate regulatory authorities or take action of its own" if Vector did not withdraw the claims. The basis for Blixt's accusation was "a series of comparative chemical tests" that R.J. Reynolds did on Omni products, in particular comparing Omni Lights to R.J. Reynolds's Winston Lights. Inexplicably, no comparisons were made to reference cigarettes in this situation, even though R.J. Reynolds envisioned passing the information on to regulatory authorities, who, if R.J. Reynolds's previously discussed logic is correct, would, no doubt, seek to replicate such tests.

2358. Similarly, when setting internal performance goals for product claims in the R&D Department, as it did with carbon monoxide reductions in 1995, R.J. Reynolds again used actual commercial products as a benchmark for comparisons (in that case, Marlboro Lights), rather than a reference cigarette.

2359. Indeed, as to all the tar reduction studies on Eclipse upon which R.J. Reynolds's claims are based, even when R.J. Reynolds did compare Eclipse to a particular brand and did

publish the study results, deBethizy admits that the results "were not published by brand name, [rather] they were all identified [only] by a . . . number." When asked how a person could find out how Eclipse did on those tests compared to Marlboro for example, deBethizy said, "I don't know how." The best he could offer was that the consumer would have to look at the data R.J. Reynolds put together compared to a reference cigarette and since that is "pretty representative" of Marlboro, conclude that it was a good proxy comparison for Marlboro – admitting that "[t]hey'd have to be a pretty sophisticated consumer" to do that, and confessing that he did not know whether it was even possible for a consumer to do this.

2360. With regard to R.J. Reynolds's Eclipse health claim studies in the 1990s, deBethizy admits further that R.J. Reynolds did not publish information about Eclipse stating how it compared in terms of risk reduction against a particular brand or brands, such that, e.g., someone could find out how Eclipse stacks up against any other cigarette that consumers in the United States actually smoke.

2361. R.J. Reynolds bases its conclusion that Eclipse may be safer on a "four step methodology" it developed consisting of: "(1) chemical testing; (2) biological and toxicological studies; (3) smoker studies; and (4) independent scientific evaluation and verification." R.J. Reynolds has represented to the public that the four step methodology was a well thought out, peer-reviewed-in-advance protocol established to overcome an "obstacle" and to fill a void created by government, scientific, medical and public health communities' failure to establish a standard for assessing potential risk reduction. On the contrary, the evidence reveals that all R.J. Reynolds did was look at all of the work it already had done to evaluate Eclipse to date,

categorize it, and retroactively dub it a "four step methodology." R.J. Reynolds did not develop a methodology and then set out to test Eclipse against it; rather, quite the opposite is the case. Not a single test or piece of data that R.J. Reynolds had already gathered from Eclipse at the time it came up with the methodology was excluded from the methodology. Moreover, R.J. Reynolds's safer cigarette expert could not identify a single chemical, biological, toxicological, or smoker study that R.J. Reynolds commenced on Eclipse after deciding the parameters of the methodology. Nor was any of the "independent scientific evaluation and verification" work done on Eclipse conducted after R.J. Reynolds determined "independent scientific evaluation and verification" was to be part of the methodology. This entire "methodology" was merely a retrofit.

2362. In fact, the four step methodology was not even a new retrofit. Rather, the model (along with all of its components) was known at least at the time R.J. Reynolds tested Premier, and the testing of Premier included all of the tests performed on Eclipse, with the exception of animal testing.

2363. And even if the "four step" methodology had been scientifically sound in theory, R.J. Reynolds's application to Eclipse is not trustworthy. Specifically, the fourth prong of R.J. Reynolds's Eclipse safe cigarette review methodology, upon which it bases its conclusion that Eclipse may produce less risk for lung cancer, chronic bronchitis, and emphysema, is "independent scientific evaluation and verification." This prong is an unreliable, scientifically invalid sham. R.J. Reynolds posits that this independent scientific review is necessary to the safe cigarette claim, and represents that it would not have made the claims about Eclipse without it. The company asserts that it is "essential" and "vital" to this step in the process that the scientific

reviewers are outside reviewers, independent of R.J. Reynolds and not employees of the company. Bernard Wagner of New York University chaired the independent review panel and is the person the company deems to be the most knowledgeable about the results of the independent scientific evaluation and verification of Eclipse.

2364. R.J. Reynolds's claims that the panel is independent are untrue. Wagner is not independent of R.J. Reynolds, but rather has been affiliated with the Cigarette Company Defendants for decades and with R.J. Reynolds in particular since the 1980s. As the following shows, he was clearly favorably predisposed and biased, and it can be expected that he led the panel in a biased manner. He therefore was not qualified to lead or conduct the "independent" scientific evaluation. Despite knowing this, R.J. Reynolds selected him to perform this function.

2365. Specifically, Wagner had served continuously on R.J. Reynolds's Scientific Advisory Board (a body separate from the Eclipse review panel) since 1985; he developed for R.J. Reynolds the scientific research on Eclipse' predecessor, Premier; and he was involved in suggesting strategies to R.J. Reynolds on how to publicly release information about Premier.

2366. From 1991 to 1997, immediately prior to chairing the "independent" Eclipse review panel, Wagner was a paid consultant to R.J. Reynolds (frequently working for the company full time), leaving that position with the comment, "Eclipse represents the future and needs to be defended in the market place." He was made a consultant during this period rather than a full time R.J. Reynolds employee to "maintain his scientific/medical credibility which is essential" (emphasis added). In actuality, this was done to create the impression that Wagner was removed from the company when in fact he was not.

2367. Wagner was also deeply involved in multiple aspects of Eclipse during the years that he was a consultant for R.J. Reynolds. During three of those years, 1992-1994, he received over \$1.5 million in fees and reimbursements from R.J. Reynolds, at least \$810,000 of which were fees for consulting on "New Product (XDU)," an internal R.J. Reynolds code name for what became Eclipse. In other words, Wagner was paid over three-quarters of a million dollars to consult on Eclipse before it was released. As part of his paid consulting work on XDU/Eclipse during these years, he devised strategies on how to "blunt . . . political and emotional" reaction to the product. One such strategy was to conduct human clinical tests, not for scientific purposes, but for "political and emotional" ones. He devised strategies about the timing of the release of Eclipse and other strategies about how to market Eclipse effectively to the scientific community. He solicited foreign scientists to "advance the marketing and acceptance of [Eclipse] by the medical community," and lobbied the FDA with respect to Eclipse in advance of its release.

2368. During this period, Wagner also chaired the "peer review committee" at R.J. Reynolds that determined which toxicological and human studies should be done on Eclipse in order to make a health claim. He edited scientific papers produced by R.J. Reynolds scientists about Eclipse technology; and he himself presented a paper on Eclipse technology prior to its release. In fact, he even made conclusions about Eclipse safety/risk reduction potential while he was still a consultant for R.J. Reynolds and before he joined the "independent" review panel. Other tasks during his consultancy included "contacting [R.J. Reynolds's] . . . political allies on ETS" (low ETS was the original marketing strategy for Eclipse); and "positioning [R.J. Reynolds] with certain regulatory groups." And after he completed his chairmanship of the

Eclipse "independent scientific evaluation and verification" panel, Wagner returned to being a paid consultant to R.J. Reynolds, with an agreement running through 2003.

2369. Even though, Wagner essentially was charged with being the independent evaluator of an experimental design that he was involved in making, none of the above information was revealed to the public in conjunction with Wagner's role as chair of the "independent" advisory panel.

2370. Incredibly, R.J. Reynolds (through its safer cigarette expert) takes the position that none of these facts, separately or combined, compromised Wagner's independence. Not one piece of the documentary evidence demonstrating Wagner's lack of independence made it onto that expert's "reliance" list.

2371. There is yet another basis demonstrating the invalidity of R.J. Reynolds's methodology for testing Eclipse. To make matters worse with regard to step four, R.J. Reynolds asserts that "Eclipse may present less risk for lung cancer or chronic bronchitis and possibly emphysema," but no trained epidemiologist worked on any parts of the four-step Eclipse analysis, notwithstanding R.J. Reynolds's conclusion that "[e]pidemiology is the only way . . . of estimating relative risk," and that epidemiology is the only way to compare relative risk posed by Eclipse to relative risk posed by the conventional cigarettes against which Eclipse was tested (which therefore assess the magnitude of risk reduction presented by Eclipse). Despite having no pre-set limits on who to include, the R.J. Reynolds did not include any epidemiologists in the group it had conduct the independent scientific evaluation and verification of Eclipse. R.J. Reynolds's rationale for excluding that profession is that epidemiologists cannot look

prospectively at a model and suggest what potential reduction in risk it might present, but can only look backwards at data gathered after the model has been employed in the field.

2372. R.J. Reynolds claims that the only audience it seeks for Eclipse is smokers of other products. Yet it has done little more than give lip service to prevent or deter people who might be interested in quitting or might not otherwise smoke at all from trying Eclipse.

2373. R.J. Reynolds claims that the only audience it seeks for Eclipse is smokers of other products. And the public message R.J. Reynolds issues about Eclipse is that the best answer is to quit, but if you do not want to quit, to consider trying Eclipse. However, R.J. Reynolds has not done anything to determine whether the use or availability of Eclipse will slow the rate at which smokers quit smoking, or deter them from doing so altogether. It did no research about this question in advance of releasing Eclipse, explaining that it needed to monitor the market after Eclipse has been released. Yet now that Eclipse has been on the market for six years, R.J. Reynolds still has not conducted such surveillance.

2374. Similarly, R.J. Reynolds has not done anything to address whether Eclipse will attract former smokers on the theory that they miss smoking and would be willing to compromise by smoking Eclipse because it is "not as bad for them" as traditional cigarettes. R.J. Reynolds did no market research to answer this question. Further, despite the company's ability to design cigarettes to appeal to different tastes and wants, with features that give different degrees of sensory responses to it, R.J. Reynolds has not endeavored to find out how to design a cigarette that would not appeal to a person who has once smoked and may miss doing so. Indeed, while R.J. Reynolds does research into why people continue to smoke, it has desisted from researching

why people start smoking.

2375. Nor has R.J. Reynolds looked into the proposition that it should be concerned that Eclipse will be attractive to minors and build precautions to prevent this; in fact, R.J. Reynolds labeled the suggestion "ridiculous." It says it dismissed propositions such as the possibility that children would not fear smoking Eclipse because it was less risky and because their parents were willing to try it, and that parents would not police their children about Eclipse as closely for the same reasons. Moreover, R.J. Reynolds did nothing to determine whether the design of these cigarettes made them particularly attractive to minors, claiming that it would not know how to do that.

2376. Documentary evidence belies the company's dismissals and denials, however. R.J. Reynolds has long believed it knows how to make a cigarette that appeals to minors. As early as 1973, R.J. Reynolds scientists outlined proposals for a "youth appeal cigarette" in a document entitled "Cigarette Concept to Assure R.J. Reynolds a Larger Segment of the Youth Market," featuring such sensory appeal items as more flavor, more "enjoyment," and more puffs. And in 1974, a number of R.J. Reynolds scientists met with an advertising group to discuss "a number of technically feasible ideas," including a "Cigarette Designed for Beginning Smokers" with the following attributes:

This cigarette would be low in irritation and possibly contain an added flavor to make it easier for those who have never smoked before to acquire the taste for it more quickly. It would not necessarily be low in tar and nicotine content. The taste would be somewhat bland; there would be minimal after taste/build-up – which would tend to cut down on the "motorman's glove" morning-after mouth taste. This cigarette could possibly be menthol. The idea is based on the fact that smoking to the initiate is a fairly

traumatic experience.

Presumably, if R.J. Reynolds could design a cigarette that could lower the sensory barriers that might disinterest minors from smoking, it could also design one twenty years later that raised those barriers – perhaps just by taking the opposite tack from what is proposed above.

2377. And, contrary to its public position, R.J. Reynolds did consider what minors thought about Eclipse, but apparently for the purpose of determining whether Eclipse had more appeal to minors than conventional cigarettes. "GTC" was the in-house precursor name for Eclipse. In 1995, prior to Eclipse's release, R.J. Reynolds prepared an internal GTC document that looked at precisely these questions. It assessed the youth population as either "current smokers," "former smokers," "experimenters," or "never smoked." It looked at factors – such as age, home environment, personality and attitudes, and cigarette use – as lenses through which to examination propositions such as:

- Parents may be less forceful about their kids smoking if they perceive the new products as having healthier benefits;
- Less concern [with GTC/Eclipse] about the risks associated with smoking (minimizes initial physical reaction to smoking);
- New product [GTC/Eclipse] minimizes the impact of the millions spent on . . . activities to keep kids from smoking;
- More likely to experiment;
- By influencing adult smoking incidence, impact is made on smoking by adolescents through parental example (seen as healthier, minimizes ETS problem, minimizes social smoking problems); and
- Less likely to quit smoking under perception of lower risk associated with smoking and because smoking is seen as less

objectionable among peers.

2378. In asking (in that same document) how GTC impacts youth smoking, the following points were made:

- Induces trial among current non-smokers;
- Reduces concern over health consciousness and smoking;
- Adolescents may view the product as an alternative to quitting;
- Enticement to those who have already suffered through quitting; and
- [Low ETS] provides adolescents with a way to mask their smoking.

2379. Finally, this same document reveals that, in November 1995 or thereabout, R.J. Reynolds broke its public vow of not speaking to youth about smoking, setting up a survey entitled "Base Data Needed Before GTC Market Launch," in which adolescents are to be surveyed about matters such as whether and what they smoke, if they have ever tried to quit, and if there are health risks associated with smoking. While R.J. Reynolds's cigarette expert disavowed ownership of this document by R.J. Reynolds, despite its "Property of R.J. ReynoldsTC" watermark on every page, and therefore claimed not to know what happened to this survey, it certainly seems that R.J. Reynolds was more interested in finding out what it will take to attract minors to Eclipse as it was in finding out how to deter them from it.

2380. Tobacco Specific Nitrosamines. Tobacco specific nitrosamines ("TSNA"s) develop in tobacco plants during the curing process and are categorized as a probable human carcinogen. There is consensus in the scientific community that they are harmful compounds that need to be reduced or eliminated from cigarette smoke. TSNAs were first thought to be a

potential risk to health in the 1960s and were more clearly identified as one in the 1970s. R.J. Reynolds has found that higher nitrate levels can increase the level of nitrosamines and that, to some extent, the level of TSNA's can be reduced if tobacco farmers reduce their use of nitrate fertilizers. And while R.J. Reynolds has conducted some experiments finding that, to some degree, using very low levels of nitrate fertilizers can somewhat reduce nitrosamine levels, R.J. Reynolds has yet to switch to only low-nitrate fertilizer to fertilize the tobacco it sells in its cigarettes. Nor will R.J. Reynolds consider removing nitrates entirely from the fertilizer its tobacco growers use because of economic reasons – the plants would be smaller and the crop yields would be reduced – even though there is no perceived negative impact on cigarette taste as a result of doing so. This represents yet another apparently technically feasible route to a safer cigarette that would not reduce consumer acceptability that R.J. Reynolds appears to be ignoring.

2381. Rather than pursue routes to prevent TSNA development through fertilization processes by lowering the nitrates that are precursors to nitrosamines, R.J. Reynolds has set out to intercept their development at the tobacco curing phase. There are two kinds of tobacco that go into R.J. Reynolds cigarettes in which nitrosamines arise – burley tobacco and flue-cured tobacco. In burley tobacco, the nitrosamines are believed to be formed as a result of microbial change of nitrates in the tobacco that cause them to become nitrites. The nitrites react with nicotine and other cigarette components to form nitrosamines. R.J. Reynolds has been aware of this microbial mechanism for over ten years but has only been pursuing the curing of burley tobaccos in ways that minimize this microbial action on the nitrate in the last three to five years. The only explanation that R.J. Reynolds offers about why it has not been developing these

solutions as early as possible is that the company was working on TSNA's in flue-cured tobacco. The only explanation R.J. Reynolds provided for why it was not pursuing research to reduce the TSNA's in both burley and flue-cured tobacco simultaneously was their assertion that some universities were working on the burley TSNA issue. Interestingly, none of this work on burley tobacco is mentioned in the report or reliance list of R.J. Reynolds's safe cigarette expert in this case.

2382. R.J. Reynolds's proclaimed approach to intercepting nitrosamine development in flue-cured tobacco is to switch from curing this tobacco from a "direct fire" process to using a "heat exchange" process. This approach is based on the premise that nitrosamines in flue-cured tobacco arise by the exposure of the tobacco in the barn to nitric oxide, and that the nitric oxide present in the barn is caused by the exhaust gas or flue gas from the burner used to heat the barn. Replacing that process with a "heat exchanger," R.J. Reynolds claims, cures the tobacco without introducing the flue gas directly into the barn, keeping the nitric oxide that is present in the flue gas separate from the tobacco.

2383. R.J. Reynolds's claims to have come up with this heat exchange idea "after years of effort" – realizing at that time that it was the direct fire process was causing the problem. Yet a similar heat exchange curing method was used by farmers in the early 1970s before direct fire was introduced. R.J. Reynolds's claims that it did not detect the problem arising from the switch in processes then, because the analytical tests for measuring nitrosamines – using liquid chromatography – were not developed until later in the 1970s. Actually, the technology of liquid chromatography existed in the early 1970s, and scientists were considering the potential harm

from nitrosamines as early as the 1960s. Even though R.J. Reynolds was aware of the potential threat of TSNA's when the heat exchange process was first used in the 1970s, R.J. Reynolds simply was not measuring for TSNA's at the time. In other words, there was a potential health threat that R.J. Reynolds was aware of, but not checking for, and as a result, R.J. Reynolds neglected it for nearly thirty years.

2384. R.J. Reynolds claims to be incorporating this new, heat-exchange-cured flue-cured tobacco "as availability permits." However, while some portion of an R.J. Reynolds cigarette may have this new tobacco in it at present, none of R.J. Reynolds's cigarettes have all its flue-cured tobacco from this source. R.J. Reynolds does not tell its consumers that it will soon use the lower-TSNA flue-cured tobacco in all of its cigarettes, so as to give smokers a choice of waiting until that time before they smoke or continue to smoke R.J. Reynolds products. R.J. Reynolds's explanation is that, even though they have introduced it in some portion into some of its products and plan to (without interruption) completely replace its current flue-cured tobacco with it as soon as possible, this lower-TSNA flue-cured tobacco has not shown results in its biological testing to justify notifying the public of its reduced risk potential.

2385. Finally, the Gentlemen's Agreement lives on in TSNA reduction work. After R.J. Reynolds reached its conclusion that going to heat-exchange curing would reduce nitrosamine levels, it shared its conclusion with all of the other Cigarette Company Defendants – laying out everything they knew at that point, but refused to do so with a cigarette company that was not part of the Tobacco Institute, was not party to the Gentlemen's Agreement, and does not share a joint defense agreement – Star Tobacco Company.

(3) Liggett

2386. The evidence reveals that Liggett's early experience with safe cigarettes was to withhold adequate and accurate information regarding products it believed to be less hazardous. Its more recent history is to do nothing at all, relying when under pressure on reference to the work of an affiliated entity, Vector Tobacco Company.

2387. Lark. In 1957, at a time when the company was one of the largest American cigarette manufacturers, Liggett and its outside research consultant, Arthur D. Little & Associates, showed that the hydrogen cyanide components of cigarette smoke "inhibited and, in excessive quantities destroyed, the ciliary action of the mammalian trachea." The cilia function to clear the lungs of toxic substances, and smoke was paralyzing their ability to do that – hence "ciliastasis." This team went on to develop techniques to measure the small quantities of hydrogen cyanide in smoke, techniques for measuring the amount of inhibition, and searched for methods to solve this problem.

2388. In 1962, Liggett concluded that using a charcoal-like granular absorbent in filters could reduce the hydrogen cyanide output substantially. By 1963, Liggett had developed a filter medium consisting of activated charcoal manufactured from bituminous coal, and first marketed the Lark cigarette, some lines extensions of which contained a charcoal filter.

2389. While Liggett touted the risk reduction benefits of Lark to the scientific community, it chose not to put such a filter in all of its cigarettes, nor to encourage the others in the industry to do so. Moreover, it refused to finance or otherwise conduct a long term study called for by members of the public health community that would compare smokers of different

types of cigarettes to help determine whether reduction in tissue exposure results from consumption of charcoal-filtered cigarettes.

2390. Project XA. By 1980, Liggett had developed a new cigarette product it believed to be safer to smokers, but cancelled its plans to market the product because of fear of litigation and pressure exerted by its competitors, and used its patent to inhibit others' ability to provide potentially real harm reduction for smokers.

2391. From 1968 to 1980, Arthur D. Little & Associates conducted research for Liggett to create a non-carcinogenic cigarette. "Project XA" was designed to reduce or eliminate the tumorigenic activity of cigarette smoke, as measured by mouse skin paintings. And, by as early as 1977, it concluded that it had succeeded in doing so.

2392. These reductions were accomplished by using two additives in tandem, palladium and nitrate. Picking up on the idea that the burn temperature affected the creation of the harmful products, Project XA sought to modify the chemical reactions in this high temperature zone, looking for catalysts to make them happen faster, and found that palladium and nitrate best accomplished this.

2393. By 1972, researchers at Liggett already had determined that the smoke from XA cigarettes contained lower concentrations of polycyclic aromatic hydrocarbons ("PAH"s), some of the most potentially harmful constituents delivered by cigarette smoke. By 1976, Liggett researchers had concluded that the smoke condensate from XA cigarettes was also far less carcinogenic (on the order of 78% to 100% less carcinogenic) in the widely accepted, standard mouse skin-painting model. Specifically, the research concluded that XA reduced overall tumors

in mice by 85-88%, and cancerous tumors by 77-100%.

2394. In addition to the skin painting studies, Liggett also performed long term inhalation studies to verify that the addition of palladium did not adversely affect the test animals – and the tests were successful. Chemical analyses showed that no new threatening byproduct was created, either.

2395. Liggett prepared XA product prototypes in both 85mm. and 100mm. lengths, with and without menthol flavor. The Liggett XA project was to be presented to Liggett's Board of Directors in January 1979, at which proponents were proposing to launch a major marketing initiative intended to capture a 1.6-percent market share within twelve months of introduction.

2396. However, Liggett's lawyers prevented Liggett from publicly disseminating information about its innovations in a way that could boost its marketing efforts. Specifically, despite these dramatic scientific successes, Liggett never published these results. Indeed, Liggett's outside counsel (including Liggett trial counsel, the law firm of Webster and Sheffield) sought to slow down or delay the progress of the XA research, for fear that its success would be an admission threatening to the company's litigation position by showing that cigarettes it already was selling were not safe. Liggett's in-house patent counsel John Bowen Ross has testified that Liggett's in- house counsel Joseph Greer prevented the issuance of a patent for one version of XA that contained biologic testing data by withholding payment of the filing fee to the United States Patent and Trademark Office. Greer wanted to prevent Liggett's XA biologic testing results from going public, because he feared it would increase the company's exposure in cancer litigation.

2397. Indeed, in one instance, Raymond Mulligan, Liggett corporate president, and Robert B. Seidensticker, also of upper management, approved the publication of an XA presentation to the International Cancer Congress in Buenos Aires, but then in-house counsel Greer overrode and blocked that decision for fear of greater public exposure of these facts. Greer also blocked the presentation of the same information at a domestic conference.

2398. These decisions, in turn, had detrimental effects on the ability of the XA task force to generate public interest in XA sufficient to bring it to market. While tobacco executives have often complained that the public health community has worked to defeat "safe" cigarette innovations, in this case the public health community encouraged such publication. The industry has long perceived that publication in scientific journals is a necessary precursor to successfully marketing reduced risk products, as the best way to get that information out to the public without encountering perceived advertising restrictions. This is precisely the route that counsel stifled.

2399. By the spring of 1979, deprived of the ability to communicate the potentially real benefits publicly, the project had begun to falter, and Liggett was seeking to dispose of its palladium inventory. While presentations were made to European tobacco manufacturers in 1980, and while some internal documents suggest continued activity on the project as late as 1984, no product was marketed. Liggett knew at the time the decision was made not to market XA that there was no scientific reason not to do so. They even told potential European marketers as much.

2400. Liggett did not market XA. Explaining this decision, Liggett's President K.V. Dey testified that the goal of the research, on which the company spent twelve years and \$15 million,

went no further than seeking to produce a test cigarette less harmful to mice, and had nothing to do with the health and welfare of human beings. Indeed, in spite of these breakthrough results, Liggett went so far as to continue to deny a link between smoking and cancer in humans, insisting that these findings "prove nothing about possible effects of smoking on humans."

2401. Other evidence shows that the decision not to market XA was made by Liggett's attorneys, one of whom was present at all XA meetings. Identifying Greer in particular, lead XA scientist James Mold noted that all of the information obtained in the lab was to be considered privileged, on instruction of counsel.

2402. Liggett further explained its decision not to sell XA as: (a) a decision to sell it overseas instead of in the United States, for fear of lawsuits alleging XA to be a tacit admission that other cigarettes were unsafe; and (b) according to Liggett President K.V. Dey, pressure and threats from Philip Morris not to market XA in the United States.

2403. Lawrence Meyer, former antitrust counsel to Liggett, testified that Brown & Williamson threatened Liggett's "very existence" if it marketed the cigarette, including freezing Liggett out of joint defense agreements, under which the industry shares the costs and administrative burden of defending lawsuits, and perhaps excluding Liggett from the Tobacco Institute as well. This instruction, delivered through B&W's representative on the Tobacco Institute's Committee of Counsel, attorney Ernest Pebbles, was based on B&W's fear that selling XA would be an admission against the interest of all Cigarette Company Defendants.

2404. Then, to cover evidence of coercive efforts to enforce the common purposes of the Defendants, Liggett in-house counsel Greer instructed in-house antitrust counsel Meyer to issue

an opinion memo for Liggett upper management to the effect that failure to market XA because of pressure from competitors could be viewed as a federal antitrust violation, and therefore no further mention of those threats should be made outside of the company. This warning was circulated at Liggett.

2405. Joseph Greer is deceased. Despite discovery requests in prior litigation for his personal files on XA, none have been produced. Liggett claims they are missing.

2406. In the late 1980s, then-Liggett CEO Bennett LeBow was aware of the company's earlier development of XA as a potentially safer cigarette product, but he ignored it. In the early 1990s, John Bunch, then a Liggett scientist and researcher, first learned of the XA technology. In the mid-1990s, CEO LeBow acknowledged that smoking did, in fact, cause lung cancer. In the late 1990's Liggett began working with the XA process again. Bunch contacted Robert Bereman, a Chemistry Professor at North Carolina State University and asked him to conduct some tests on the cigarette smoke from the XA. Bunch testified in 2002 that the initial results of these tests showed a reduction in PAHs. Bereman confirmed that his 1998 review of the 1970s era XA patents revealed that Liggett had, in fact, discovered a way to reduce PAHs in cigarettes.

2407. [REDACTED]

[REDACTED]

[REDACTED]

Indeed, when he became a research chemist and then the Vice President of Chemical Research at Vector, Bereman was able to make a marketable product out of the XA research in only a few years. That product is Omni.

2408.

[REDACTED]

[REDACTED]

2409. In July 1997, Liggett Director of Research John Woods offered suggestions to then CEO Ronald Fulford on how to make a traditional Liggett product safer. These suggestions included removing ventilation holes and using a carbon filter. Fulford testified that the company did not pursue that course for financial reasons, among other things; he did not want to invest in the company's premium product lines at the time. He "couldn't find any instance anywhere in the world of anybody taking any initiative on the premium product to improve the sales."

2410. Despite admitting in the mid 1990s that cigarettes cause lung cancer, and that nicotine is addictive, as of 2000, Liggett had not made any product design changes on any of its products that could potentially make them less hazardous, nor has the company done anything to reduce the levels of nicotine delivered in its traditional products to make them less addictive. Indeed, the company has spun off its safer cigarette research staff and products to what is now Vector Tobacco. Bennett Lebow, controlling shareholder and CEO of Vector Tobacco, Liggett's parent company, testified in 2002 that this spin-off was due in part to litigation concerns.

(4) B&W/BATCo

2411. B&W, individually and through its parent, BATCo, has been a strict adherent to a practice of not getting out ahead of the other members of the industry on the issue of reducing risk.

(a) Defensive Cooperation, Not Affirmative Competition

2412. For forty years, BATCo has played a prominent role in assuring that the

companies respond to issues of reducing risk in tandem. On September 24, 1962, BATCo hosted a "research" conference in Southampton, England on phenols entitled, "The Importance of Phenols to the Health Question and Their Possible Elimination from Cigarette Smoke." Despite its title and purported "research" angle, Charles Ellis of BATCo identified the conference as essentially a forum to discuss why the industry had a fractured response to the problem of phenols rather than presenting a united front, and how to avoid such problems vis-a-vis safer cigarette development in the future.

2413. Recognizing that the phenolic fraction of smoke promotes tumors a "co-carcinogenic action" and also affect the functioning of the cilia, and that filtration was a possible solution, H.D. (Hugh) Anderson of BATCo urged that, as a strategic matter, all future research on this topic be done collectively, on an "industry basis," noting:

If, in fact, this had been the case in this circumstance then Lorillard could not have come out with such [a unilateral] pronouncement [that its Kent cigarette had a new filter with a 90% efficiency for phenol]. This is a good reason for doing medical and biological research industrywide and it points out the danger which might be expected when any single firm goes it alone.

2414. Anderson went on to say that while there are "two sides" to the question of phenols – "the scientific side and the political attitude," the "political implications have at the moment by far the greater importance." Noting that the industry has refused to take "a more positive approach to this whole problem of producing 'safe' cigarettes" because of the threat it posed to defense of ongoing law suits, he further urged in behalf of the company that the industry take a position of collectively deciding which harmful agent "from the point of view of tumor promoting activity" should be attacked next, and that the industry not only choose what to look

at, "but we also have got to decide on the amount of effort to achieve our objective before the next attack. To that end, Anderson sounded out the basic precept of the Gentlemen's Agreement: "We are committed not to carry out any biological testing ourselves and as I have said this is a valuable safeguard against unilateral action." The meeting concluded by agreeing that "Harrogate" – a British research facility – should test the biological activity of filtered and unfiltered cigarettes.

2415. In 1963, BATCo counsel Addison Yeaman recommended that the industry "discover the carcinogen or carcinogens, or co-carcinogens . . . and demonstrate our ability to reform or neutralize them." This suggestion was rejected.

2416. As early as 1967, BATCo set limits on the extent to which it would explore safer cigarette options, if at all. Beyond the guideline that profits could not be affected, the company determined that no energy should be expended to change consumer expectations so as to shape consumer acceptance. In other words, BATCo would not publicize health claims to convince smokers to give up changes in taste.

2417. B&W pressed its agenda externally, as well. In one instance, B&W and BATCo affirmatively worked to create confusion and uncertainty about the idea of safe cigarettes, rather than work toward a solution to a problem that they publicly denied, but privately admitted. Specifically, on September 16, 1976, B&W (through in-house counsel Ernest Pebbles) warned BATCo against participating in a British safer cigarette working group because it would be

recognized as an acknowledgment (which could be attributed/
applied to B&W in the United States)

- that there is a health hazard from smoking;

- that the current state of the art knowledge is sufficiently advanced that an independent committee can posit reasonable steps for a manufacturer to take which may reduce risk to consumers; and
- that BATCo would have to cooperate in reaching recommendations re changes to the product itself.

2418. Instead, in order to protect United States legislative and litigation activities, B&W urged BATCo to take the following positions:

- the scientific picture is so complex that a cause effect relationship cannot be divined and therefore rather than researching a safer product, it is better to research the multifactorial relationships between individuals and onset of disease; and
- to adhere to the view that the use of tobacco is not unduly dangerous, which permits the company to avoid any duty to warn or to make affirmative changes to the product.

(b) Withholding Potentially Safer Products

2419. As early as 1968, BATCo already knew of "a number of features of cigarettes [that] can rectify the biological activity of smoke condensate" – i.e., potentially reduce the risk. Among those identified by then-director of BATCo general research and development S.J. Green were "incorporation of PCL and CRS, the form of the smoking vehicle, the type of tobacco and the presence of additives." No product or product change appears to have emerged from this knowledge.

2420. And if B&W did offer a product with potential comparative advantages for a smoker, it planned to refrain from competing on health claims by disclosing these potential

benefits to the consumer. In one instance, B&W affirmatively took steps to deprive the smoking public of information about a product with reduced carbon monoxide content in order to protect its other, more dangerous cigarettes with higher CO content. Specifically, in 1976, B&W marketed Fact, a low gas cigarette that selectively filtered out carbon monoxide. Its first offering failed commercially, so B&W instructed its advertising agency, Post-Keyes-Gardner, to devise a new campaign. The agency responded by saying that the consumer did not understand that "gas was a health hazard, and an effective campaign would both educate them of as much, and show how Fact responds to that hazard." B&W was "appall[ed]" at the notion of admitting that gas-related health problems existed, and traded the health of its customers for protecting its own business by opting to wait "[u]ntil the problem of gas becomes public knowledge through government investigation or media coverage." In other words, what the consumers did not know would hurt them, but the industry would remain unscathed.

(c) Ariel

2421. The most significant example of B&W/BATCo using safer cigarette technology solely as a defensive measure is its history with Ariel. Even after Ariel had been shown to deliver adequate levels of nicotine, in a non-combusting, harmful-constituent-reducing cigarette, in a consumer acceptable and feasible manner, BATCo quickly distanced itself from the product, obtaining patents for it but not bringing it to market.

2422. The effort began when BATCo sought to respond to a finding by the British Ministry of Health announced in a press statement on February 12, 1954, expressing the British government's view that the relationship between smoking and lung cancer could be taken as

established. Charles Ellis, who was appointed Scientific Advisor to the Board of BATCo in 1955, pressed for the development of a "'zero tar' cigarette, a device which would deliver nicotine aerosol without any combustion products."

2423. On January 3, 1962, Battelle Institute provided Ellis and BATCo a research proposal regarding Project Ariel based on experience gained during work on a series of nicotine-related projects, Mad Hatter and Hippo I and II. Mad Hatter, Hippo I, and Hippo II were research projects conducted for BATCo studying nicotine. Mad Hatter dealt with the fate of nicotine in the body, while Hippo looked at the tranquilizing effects of nicotine in the body, looking at tranquilizers as a possible competitor of nicotine and cigarettes. According to a file note dated July 14, 1967, Mad Hatter was originally arranged to maximize the desirable constituents of smoke and minimize the undesirable ones. The results of the Hippo research led to the internal conclusion at BATCo that, "nicotine is addictive. We are, then, in the business of selling nicotine, an addictive drug effective in the release of stress mechanisms."

2424. Thus Battelle, which had previously but unsuccessfully approached Philip Morris with a similar idea in 1960, was proposing a safe cigarette that maintained the smoker's attention by intentionally maintaining the addiction to nicotine:

That which we have in mind is the development of a new smoking device that, by administration of nicotine in suitable form, should give full satisfaction to smokers while at the same time avoiding the well-known disadvantages inherent in actual cigarette smoking.

...

Nicotine as a free base is not appropriate for administration to human beings either through the digestive track or into the lung. Besides making people cough, it is also too quickly transferred into the blood stream and thus creates too high an initial concentration before the 'partition' has been accomplished. As nicotine in the

form of its free base is apparently more volatile than its salts, the creation of a suitable combination, such as for instance a salt with an organic acid or an aerosol, should be studied after the sublimation of nicotine. Such a complex should give a pleasant feeling to the nicotine consumer.

...

The new arrangement should give as much psychological and physiological pleasure to the smoker as conventional smoking does, and it should also create *addiction* in about the same relative amounts.

2425. In Ariel, Battelle suggested the design of a non-combustible tobacco product using heat rather than burn technology to avoid "[t]he well-known disadvantages inherent in actual cigarette smoking," such as "[t]he formation of tar and carbon monoxide, as is the case in the smouldering reaction of conventional smoking."

2426. Within a year of Battelle commencing its work on Ariel, in November 1962, Ellis wrote to BATCo board member D.S.F. Hobson inquiring as to the feasibility of filing a patent on Project Ariel, in which Ellis described a meeting with Daniel Kane, a patent lawyer from B&W. Ellis was strongly in favor of obtaining a patent, stating that "our other work at Geneva [Battelle] on the physiological effects of nicotine puts us in exceptionally good position to interpret the notion of such a device." Having convinced BATCo to apply for a provisional patent cover, in January 1963, Ellis provided a suggested programme for Project Ariel. And on February 13, 1963, Ellis wrote to Hobson to suggest a gradual transfer of responsibility for Ariel from Battelle to BATCo, and a "definite phrase stating that BAT will undertake the commercial realization of the project." Ellis went on to state: "There is no doubt that the project is feasible . . . I [Ellis] myself smoked two crude versions of the devices . . . and obtained a marked nicotine effect without, of course, any combustion products."

2427. In a Battelle letter-report dated February 18, 1963 from Battelle scientist Hans Schachner to Ellis, Schachner stated "it was possible to smoke a complete cigarette and get some satisfaction out of it. These experiments make it appear very likely that a satisfactory device can be developed."

2428. However, on the same day, BATCo board member (and future board chair) D. R. Clarke stated in a memorandum that he could not see any likely commercial application for Project Ariel, which "certainly could have no future unless the ordinary cigarette is proved to be harmful and the industry is unable to remove the cause of the trouble," recommending that a monetary limit be placed on any funding of the project.

2429. At this point, Charles Ellis began to distance himself from the Ariel project. Despite earlier references to increasing BATCo involvement in the project, Ellis stated, in response to the February 18, 1963 Battelle report, that "at the moment the initiative for any changes or new ideas should come from you and we want to avoid interfering with your work," while emphasizing that "[w]e attach great importance to this project and will do all we can to help it along."

2430. Battelle was not deterred. On September 16, 1963, scientist Hans Geissbuhler informed Ellis in a memo that Project Ariel would demonstrate the activity of nicotine in the Ariel smoking device would be at least equal to that in regular cigarettes: "The addition of essential oils or any other additive designed to improve taste and acceptability has no detrimental effect A standard-type design is acceptable to a variety of smokers (confirmed, beginners, inhalers, non-inhalers) with regard to odour, taste, lack of irritation and satisfaction of urge to

smoke."

2431. Ellis nonetheless held off, as BATCo officials apparently started to become concerned that Ariel could be perceived as a healthier cigarette and attorneys began to suggest revisions as to the description of the device. In a November 25, 1963 letter from Ellis to B&W patent attorney Daniel Kane, Ellis commented upon the draft patent application stating: "We do not think it would be politic at the present moment to refer to components of ordinary smoke which are not beneficial. We suggest instead a phrase, 'the smoke stream thus formed of the products of combustion may contain components which in some people's opinion are not desirable'."

2432. On January 7, 1965, Geissbuhler issued the final Battelle report on the biological part of Project Ariel, suggesting further tests on specific chemicals. At this point, the research at Battelle apparently was terminated.

2433. When the issue of whether BATCo should pick up the Ariel research arose in August 1966, BATCo research and development scientist S.J. Green noted that an internal company report dealt inadequately with the issue of continuation of work, and later issued a separate note requesting the company hold up any further work on Ariel.

2434. Internal BATCo documents indicate that it was not the scientific evidence available at the time that motivated Green to halt work on Ariel. While the internal report Green reviewed stated, "Ariel cigarettes have been assembled which will enable the smoker to obtain a required amount of nicotine with or without cigarette smoke," although "[t]he devices which have been made to date are still a considerable way from being acceptable and easily produced,"

it nonetheless concluded that "the original objective is feasible and achievable." Indeed, the report also stated that Ariel was a "device which eliminate[s] tumorigenic and biologically irritating elements of normal cigarette smoke] provid[ing] a safer smoke." Another BATCo report also concluded that the Ariel design provides "a satisfying smoke which, within present knowledge, is 'healthy'."

2435. Thereafter, except for the patents, Ariel lay dormant at BATCo, where the company was forced to straddle the fact that it had publicly identified a harm-reducing technology and the fact that it was not using it in a marketed cigarette. For instance, in a note from Green to Hobson dated June 26, 1969, Green stated that Ariel could only be successful in "the advanced countries with smoking and health problems," and suggested that the patents be dropped in all other countries.

2436. Notwithstanding that suggestion, BATCo kept the patents. And in early 1970, a company approached Battelle Memorial Institute inquiring as to a possible license of the patents held by BATCo regarding Ariel. BATCo forwarded the request to Charles Ellis on February 18, 1970. Green notified Dobson, stating that he

[did not think] we can sensibly refuse a license to a bona fide request. This could easily lead to an embarrassing situation since the inventors are known to be associated with BAT . . . My view, however, is that we should in fact be prepared to grant non-exclusive licenses to suitable applicants and that this should be initially at a purely nominal fee and consequently with little or no interchange of technical information. . . . Unless and until there is wide public interest, the connection with BAT is unlikely to be noticed.

2437. On March 2, 1970, S.J. Green informed B&W researcher Hughes as to the

licensee plan, stating: "My reasoning is that to refuse is to invite adverse reaction – if we claim this invention has any conceivable contribution to make on health grounds." Hughes responded to Green's letter, stating that "it would be inadvisable for his development to be licensed to anyone in the USA." Green disagreed with Hughes in his reply, stating "we have decided that our position would become untenable if we hold an exclusive position on a patent in this field which apparently offers a safer smoking article without attempting to exploit it ourselves."

2438. Green's letter apparently set off a series of correspondence culminating in a letter to Addison Yeaman, which stated the following:

The work on Ariel and its patenting was dealt with in a way entirely different from our usual research work. It was dealt with throughout by Charles Ellis as a separate exercise and financed outside our normal R&D expenditure; the patents were put into Battelle's name rather than BAT's for security reasons.

...

You have stated with absolute clarity your view. Our view is that to refuse a license if we were asked for one could prove embarrassing if our refusal ever came to light, as it could be said that we were blocking a development of a product which might be beneficial as an alternative to cigarettes.

2439. But this is precisely what the company did. In sum, BATCo held the patent since the early 1960s, distanced themselves from it by putting Battelle's name on it, unilaterally stopped research despite feasibility arguments in 1966, allowed the patent to expire in several countries, and only acted when approached by a licensee. Even then, BATCo only licensed the product for a nominal fee for use by a company they thought would fail and provided no technical guidance beyond the patent itself.

2440. It does not appear that B&W ever intended to market Ariel. B&W did not attempt

to further develop Ariel until R.J. Reynolds marketed Premier. After that, in the late 1990s, the company sought to respond to Premier, with efforts that included a cigarette heating technology

[REDACTED]

[REDACTED]

Despite having obtained patents on some parts of Ariel, and contrary to its statement at the time that Ariel was scientifically feasible but not likely commercially successful, B&W now says that Ariel was "deemed pretty much to be not workable." B&W's director of Research Services & Analytical Research testified, with respect to Ariel, "I mean, sometimes you get patents to prevent other people from doing something."

(d) Pressure from Within B&W to Suppress the Science

2441. Through the 1980s and 1990s, B&W continued its efforts to suppress progress toward a safer cigarette based on its long standing position of how best to protect the industry. At B&W in the late 1980s and early 1990s, company lawyers and upper management infiltrated and controlled research issues such as safer cigarette development.

2442. The company's plan was to maintain an "open controversy" as a justification for not making a safer cigarette, while not marketing a safer cigarette permitted the industry to maintain the open controversy – because to make one would be an admission of harm. In October 1989, in-house counsel, J. Kendrick Wells, III, set out this strategy in an internal memorandum:

You asked me to outline a response to a suggested strategy for modification of cigarettes in ways which would be said to reflect the smoking and health controversy. The suggestion includes constructing cigarettes which would have modifications such as lower biological activity, lower levels of specific smoke constituents, and lower tar and nicotine; approaching 'regulators' to seek approval of such modified products; and marketing the modified products to consumers. B&W should oppose the suggested strategy for several reasons, the first of which is that science does not support offering a modified product as relevant to concerns about smoking and health. . . . B&W's positions on smoking and health are based on science. Today, our opinion is science has not established that smoking causes disease in humans and no cigarette can be constructed which would be safer than another. . . . Neither the Ames test nor any other bioassay (including 90 day rodent inhalation tests) would provide substantiation for a manufacturer's statement that a product modification was significant for smoking and health. . . . [I]t is not established that the reduction or removal of specific smoke constituents or of smoke constituents across the board, such as in low tar cigarettes, is significant for smoking and health.

2443. For instance, in the fall of 1989, leaders of BATCo research from its B&W location as well as from its foreign entities met in Vancouver, British Columbia, to discuss topics surrounding the development of a safer cigarette, including selective reduction of harmful substances and nicotine analogues. The scientists produced a fourteen page set of minutes from that meeting. B&W and BATCo lawyers – particularly Assistant General Counsel Kendrick Wells – obtained a copy of those minutes and eliminated twelve of these pages. All references about safer cigarettes – from which a conclusion could be drawn that currently-sold cigarettes were not safe and that nicotine is addictive – were removed.

2444. Following that Vancouver meeting, B&W President Thomas Sandefur instructed Vice President for Research and Development Jeffrey Wigand to discontinue discussion or efforts on any issue related to safer cigarettes, even though BATCo was conducting selective reduction research in Canada and the United Kingdom. Like the attorneys, Sandefur said that alluding to the prospect of a safer cigarette would be fatal to the company's position relative to smoking and health liability issues by admitting that its other products were not safe. Not only was there to be no more research or discussion on this topic, but Sandefur also prohibited the company from having a scientific and medical advisory committee to provide direction or support to the development of a safer cigarette.

2445. When Wigand arrived at B&W, he learned that it already had conducted various studies related to nicotine and the biological activity of different cigarette blends, and biological studies, but he was precluded from learning the results of those studies – including tests on potential safer cigarette products Ariel and Mad Hatter. Wigand also was rebuffed in his efforts to hire a toxicologist at B&W (to his knowledge, B&W had never employed one) to properly test the effect of new cigarette additives when the cigarettes were lit or burned.

2446. Lawyers and management exerted pressure externally, as well. Vector claims that in February 2001, in response to Vector announcing its plans to market Omni, a reduced carcinogen cigarette, Philip Morris and BATCo lobbied Argentine officials to prohibit cultivation in Argentina of the genetically modified tobacco that Vector says is a key component of its product. Roberto Sanchez Loria, Agriculture Secretary of Tucuman, Argentina, confirmed that these two companies warned him that his province was "in danger" of losing business from the

big tobacco companies if it continued to plant transgenic tobacco.

(5) Lorillard

2447. The lack of activity at Lorillard regarding development of a safe cigarette exemplifies the Cigarette Company Defendants' "Gentlemen's Agreement." By the 1960s, the company recognized that the first party to successfully market a less hazardous cigarette product would reap substantial and unilateral financial rewards. Recognizing that the target consumer for such a product would be the person reluctant or unable to quit, in a November 1977 letter, Benito Vila of Lorillard wrote to company marketing executive Richard E. Smith: "I don't know of any smoker who at some point hasn't wished he didn't smoke." Vila wrote that if Lorillard could develop an acceptable alternative method to deliver nicotine, "I am 100% sure we would have a gigantic brand."

2448. Lorillard, like other Cigarette Company Defendants, pursued in the context of safe cigarettes how to deliver levels of nicotine adequate to addict smokers in the context of a very low tar product. A 1976 report on the activities of the R&D department, the existence of which was to design and test safer cigarettes, mentions "nicotine augmented cigarettes" as one such project. This research focused on changing the nicotine-to-tar ratios, stating:

It was felt that the trend toward even lower "tar" values would reduce the nicotine delivery to very low levels. Hence, in order to satisfy the nicotine requirements of the smoker, the nicotine level needed to be maintained at no lower than 0.4 mg per cigarette. . . . One point of view of is that the physiological needs of the smoker could be met by increasing the ratio of free nicotine to total nicotine by maintaining a relatively low total nicotine level. This can be brought about by raising the smoke pH.

2449. Lorillard since has conducted such research.

2450. Also in 1976, Lorillard urged that an apparently industry-wide effort to offer a product with 50% less nicotine be discontinued despite "considerable consumer trial appeal" because such a cigarette "could not deliver the smoking satisfaction to sustain consumer purchase." "Smoking satisfaction" is a code phrase Defendants have long used to denote "addiction" or "addictive qualities."

2451. Despite acknowledging the potential economic benefits of developing a purportedly less hazardous cigarette, Lorillard has been very reluctant to do so. For instance, it only marketed a charcoal filter cigarette when the rest of the industry was doing the same.

[REDACTED]

2452.

[REDACTED]

[REDACTED]

[REDACTED]

2453. Similarly rather than actively pursuing the development of a potentially safer cigarette, Lorillard's efforts have been largely reactive. For instance, in the early 1960s, Lorillard researched the selective filtration of phenols. The major reason it did so was because the public health community called for such efforts. This research resulted in a patent and new filters being added to all Lorillard filtered cigarettes to remove phenols.

2454. Likewise, Lorillard did not turn to efforts to reduce carbon monoxide ("CO") until public health groups claimed that CO was poisonous in large amounts and should be reduced.

2455. Similarly, Lorillard looked at solving ciliastasis only for as long as the public health community called it into focus. Specifically, in the early 1960s, Lorillard studied the phenomena of ciliastasis – the immobilization of hair-like structures that line the lung and help remove harmful substances. In the late 1950s, a theory developed stating that cigarette smoke contained components that arrested or slowed down the process by which inhaled particulate matter is removed from the lungs. This disturbance in the removal of particles in the lung is known as ciliastasis. In the late 1950s and early 1960s, Lorillard was researching some experimental compounds to prevent ciliastasis from occurring. Lorillard conducted significant research relating to one compound in particular, phenol methyl oxadiazole ("PMO"), as a possible solution to the problem of ciliastasis. PMO was added to cigarettes and people were asked to test the cigarettes, but they found the taste unacceptable. As a result Lorillard never added PMO to any commercially-available cigarettes. After the 1960s, Lorillard did no further additional research on PMOs – apparently not even in the 1970s, when it began using additives

whose purpose was to improve the flavor of cigarettes.

2456. To the extent that Lorillard has discussed safer cigarette development, profit margin functioned as a priority limiting factor for Lorillard. In 1977, Lorillard set a goal to develop and sell a "zero tar" cigarette by 1980, the year that Philip Morris introduced Cambridge. In a memorandum to Spears discussing the filtration, tobacco blend, and flavorant requirements to create such a low delivery product, Lorillard's scientist stated:

[A] filter efficiency of 98-99% will be required. Present technology and presently available filter materials do not permit us to reach this level without utilizing special construction or treatments such as those employed in Now or Vantage type filters. Although these employ present technology they require special production techniques which are too slow to be acceptable for production of a brand having a significant share of market. Therefore our goal must be to produce a filter system capable of extremely high filter efficiency and capable of being produced at acceptable production rate and cost. (Emphasis added).

2457. Thus, despite acknowledging that the filter that Lorillard needed to create a zero tar cigarette already existed, Lorillard qualified its commitment to implement the technology by imposing an ambiguously large market share threshold – "a significant share of market." This imposition of a variable, unnamed level of market success – a qualification also reflected in BATCo documents discussing the approach of its "less hazardous" cigarette efforts – demonstrates that the Cigarette Company Defendants gave themselves a ready "out" for their failure to commit to the development and aggressive marketing of a product that they believed might actually reduce the harmful effects of smoking.